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## Septicemia—Shall We Hope?

SEPTICEMIA! With what a sense of utter helplessness and blank despair the very word used to fill—or rather, empty—our souls! And while we were wont, if we were sympathetic men as well as doctors, to talk encouragingly and hopefully to the patient and his friends (especially to the friends), yet in our heart of hearts we knew that the doom had been read in the mere diagnosis of blood-poisoning, and that all of our busy activities in the way of medicines and bathings and what-not were nothing but the stout refusal of the brave warrior to lay down arms even to a forlorn hope—not that they made it any the less a lost cause.

It seemed for a time that all the additional knowledge we gained about the nature and behavior of septicemia made it just that much more terrible and hopeless. But knowledge is always power—eventually. And gradually, out of our better and more intelligent acquaintance with the actual processes involved in this dread condition, which at first seemed only to render it more terrifying and paralyzing, science wrested, almost literally by blood and tears, the secret of how to combat and conquer it.

Not that these septicemic conditions are by any means vanquished yet, or that they have ceased to be terrible. No one who stands (as I have stood for the past week) in the presence of a severe streptococcic infection is in any danger of belittling their gravity. Nowhere, I think, in the whole realm of clinical medicine, does one have such a sense of the appalling awfulness of the foe

he has to fight, as in the face of these elemental blood infections. And the more he knows about them, the less he is likely to underestimate the enemy's strength or to belittle the gravity of the situation. Those who talk lightly of blood infections, even in these modern days, are the men who have never measured their forces with them.

But at least the physician need not, nowadays, throw up the sponge at the first gage of battle; he need not even stage a sham shadow-contest; he can put up a real fight. Modern science has put into his hands the weapons with which, in kind at least, he can oppose the dread condition adequately, intelligently, and often successfully. Not always successfully, of course, for even though one knows all the strategy of the enemy, and has attack and defense provided for at every point, one cannot insure the outcome of the struggle. But at all events such knowledge and such armament give him an equal fighting chance, the like of which he did not have in former days.

This knowledge has been attained for us by our biologic laboratories, and these armamentaria furnished us in the shape of the biologic therapeutic products, the bacterial serums and vaccines, especially the latter. In the bacterins we have a weapon which puts us on an even footing with the infections we are combating, and enables us to fight them on their own ground—to carry the war right into their own country, as it were.

We are no longer compelled to oppose minute guns with old-fashioned archery and wicker-work shields. It is no longer an unequal

test of equipment, but a free, fair, and comparatively equal test of strength; a real conflict, in which the physician may justly feel that it is anybody's fight until the very last drop of the hand, in which he will not infrequently find himself the victor, and even when he is beaten may experience the satisfying conviction that he fought intelligently and well with the odds of strength against him.

Of course armamentaria are not everything. The man behind the gun is a factor, and there is no doubt that the employment of biologic therapy will become more and more efficacious and successful as we learn to apply it more intelligently and tellingly. R. W. Allen, of London, who is perhaps the greatest living clinical authority on the subject, declares that "personally, I have never lost a single case of septicemia, although called in in several instances as absolutely a final hope, and regard this class of cases (i. e. general septicemia) as the most easily managed in the whole domain of bacterial diseases, and the one in which above all hope should never be abandoned as long as the patient is alive."

This seems to us like an extravagantly optimistic position—and yet, perhaps, when we are all as expert in the use of serums and bacterins as Dr. Allen, it may prove not to be so very much overdrawn after all. At all events, Dr. Allen's statement, and his whole experience with these products, emphasizes the concluding lesson of his assertion, that hope (and, let us add, effort) should never be abandoned as long as the patient is alive.

One of the most striking and significant points brought out by Dr. Allen in his book on "Vaccine Therapy" is the fact that general septicemia is not, of itself, the dangerous or fatal factor, but rather the localization of infection. "I do not believe," he says, "that bacteria circulating, or even multiplying, in the blood and the blood alone are capable of killing. Death takes place from toxic absorption from a localized focus or foci of infection, whether in the lung, or the heart, or the uterus, or the peritoneum."

We may add, further, that even then it is not the bacteria which directly produce death, but the physical damage suffered from the toxins by these local organs and tissues. This is in accordance with what has long been clinically known concerning infections, that patients (especially children) react well to general infections but badly to localized ones.

"It therefore follows," continues Allen, "that, on the possibility of dealing adequately with these foci, of eliminating further toxin

absorption, and of facilitating the elimination of toxin that has already been absorbed, lies the essential to a successful issue, and the success that attends vaccine treatment is in direct ratio to the aid it renders these processes."

No doubt this is the keynote to the clinical phase of vaccine therapy, and represents the point of discrepancy between theory and practice which is so often encountered and which must necessarily continue to be encountered in more or less degree. Every therapeutic agency has its own peculiar point of discrepancy between theory and practice. But this does not in any way invalidate its general value and utility; and as experience teaches us how better and better to meet this point our success with vaccine therapy will grow more frequent and more complete, just as has already been the case with medicinal agents.

Dr. Allen speaks of his success even in cases where he was called in as a final hope. Such delay is, of course, not cited as a pattern, but as a warning. With bacterins, as with all other forms of treatment, the chances of success are directly in proportion to the earliness with which it is instituted. Better results are, as a rule, obtained when the bacterins are supplemented by the use of large doses of antitoxic serum, the bacterins stimulating the cells to a production of antibodies much more effectively if the patient's toxic condition is first relieved by the use of serum.

Meanwhile, do not forget the vital therapeutic significance of those elementary principles so long advocated in these columns: in septicemia, as in all infectious diseases, eliminants, intestinal antiseptics, cardiac and nervous stimulants, and general and cellular tonics, are usually indicated—and the fighting physician will have them all constantly in mind.

Try planning your work for one month, and note the results. Then paint in imagination the results of twenty years of working according to a plan.

#### OUR ARTERIES

A man is "as old as his arteries"? Yes, but how old are his arteries? As old as the man is in years? By no means necessarily so.

Our bodies are full of little peculiarities, many of which are unknown to us. They are inheritances from a long line of ancestors: Wise little provisions of nature, adaptations, safeguards, developments, resistances, suitable for conditions many of which no longer

exist, having become obsolete by the change of customs and manner of living. A fair example is afforded by our arteries.

In our Freshman year we learned that the arteries are elastic; that their coats contain a proportion of elastic fibers. Why?

Our tree-climbing progenitors were subject to many vicissitudes, as were their cave-dwelling successors, their hunting, herding, farming descendants. At times food was plentiful and they gorged; at other times it was scarce, and they starved. Some times they were sated and safe, and enjoyed the luxury of sloth as only they can do to whom rest is rare. Many times they could escape death only by exertion such as touches the limit of the humanly possible. Frozen by cold, baked by heat, parched with thirst, then again reveling in cooling wazers, they endured every extreme compatible with continuance of life. In times of scarcity the hunger-belt was drawn tight, and the half-filled arteries shrank to the caliber demanded by their scanty contents. In the day of excess, the vessels widened to the limit, to make room for the floods pumped in by the powerful heart beats. The exercise of contraction and dilatation, for which they were adapted, kept these vessels in good health; as any part of our organism is maintained in health by adequate exercise.

Tie up a limb and the tissues wastes, the joints stiffen, the muscles degenerate. Disuse any function, and the part decays. Why except the artery? In these piping times of peace, we have no vicissitudes. Mr. Businessman never goes hungry, never eats or never drinks too much, never exerts himself enough to flush his face disagreeably or set his lungs panting, never strains himself in any way. His arteries never contract or dilate, but remain uniformly of the same dimension. Then, as mid-age approaches, Mr. Businessman wonders at finding his vessels' walls degenerating, his arteries hardening; and then, if he does put upon them a sudden and tremendous strain, he falls dead, because by disuse his blood-vessels have lost the power of adaptation to needs. And then the wise men put the blame upon "the sudden strain," and his brethren solemnly resolve never to permit themselves such perilous efforts.

But death was not owing to the strain, it was from the lack of straining.

Don't be too regular in your habits. Drink all the water you can for a week, then partake of as little as possible for another week. Eat corporation-dinners sometimes; once a month fast for a whole day. Get out with

the boys and play ball once a week. Take a few days in the harvest-field or at mountain climbing—a grand strain for the circulation. Tyndall spoke glowingly of his Alpine climbs. Give your vessels their due exercise, and keep them young.

The rat's teeth are designed for gnawing, and as they wear down are reproduced by growth. Shut a rat up so that it can not gnaw, and the teeth continue to grow, until at last, it is said, they close the mouth. The shod horse must have his shoes removed once a month and his growing hoofs pared down. The soles of our own feet are reproduced so rapidly that those who go barefoot suffer less than those who wear shoes. Etcetera, etcetera—examples without number.

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I have found three types of men in the medical profession. There are the muckrakers, not in the modern signification of that word, but with its classic definition from Bunyan, the fellow whose sole purpose is the raking together of dollars, no matter how dirty; the wooden-headed mechanic, mechanically working at the trade of medicine; and the true professional man, the high priest of purity, serving at the altar of clean, sound manhood and womanhood for the "healing of the nations."—Dr. G. Henri Bogart.

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#### THE PROBLEM OF NUTRITION

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Samuel D. Gross used to say that were he teaching therapeutics, he would begin by showing his class how to cook a beefsteak. *Certes*, a really good cook-book, if there were one, should be one of the textbooks of that department.

Nutrition is the foundation of life, the prime necessity for recovery from sickness. Our treatment up to this has dealt with the means of removing the obstacles to recovery—clearing the road—but the vital organs can not undertake the separative processes unless they are sustained and provided adequately with material for repair. An impure or insufficient supply of material renders rebuilding impossible.

Our study of nutrition begins with the classic grouping of foods into proteids, carbohydrates, hydrocarbons, and mineral salts. The average normal person is supposed to partake of these in the normal proportions and quantities. Right here we leave the study of the average man and begin to consider him as an individual, for each departs in some respects from the average. There are men who simply can not digest meat; others are affected unpleasantly with starch-indigestion; others, again, find sugars breed their due proportion of fats.

Each form of indigestion has its well-established train of symptoms and its appropriate treatment. Thanks to the precise methods of the laboratory, we have left behind the more or less accurate guessing of our fathers, and can tell with exactitude the form and degree of the digestive insufficiency. By the use of the needed digestants we can initiate the enfeebled process, when the forces unaided could not accomplish this; and when any digestive process has begun, it continues automatically until completed.

In febrile maladies, the problem is difficult. We face an increase of waste and a weakened digestion, the enzymes being secreted in smaller quantity or not at all. Yet, if the emunctories are kept clear and in full activity, enough food will be digested to sustain life, as a rule. Common sense points to the use of foods that put the least strain upon the weak digestion. The food must be nutritious, easily digested or even predigested, and given in such quantities that the patient can take care of it without difficulty.

Here a wise remark of Fothergill's may be taken as a theme—there is a difference between putting food into the stomach, and nourishing the patient. Moreover, we are learning that man can sustain health with far less food than is usually believed, provided the little ingested is of the right kind and properly eaten. Like everybody else, when Weir Mitchell prescribed a half glass of skimmed milk every four hours as the full diet of an adult, we did not believe it was enough. But after keeping a patient upon this diet for seven months, finding his weight just what it was when the dieting began, we realized the correctness of the great clinician's observations.

In all fevers, the four-hour feeding is the rule. In typhoid fever, though, we face another difficulty. The implication of Peyer's patches places the patient in much the same situation as one whose thoracic ducts are obstructed; and, little as may be the proportion of the chyle that passes in through that channel, the patient starves for lack of it. Hence, it has been concluded that we can not nourish the typhoid patient. But this goes too far—we do not know that all of these glands are affected.

The glandular disease begins in the duodenum and by the time it has inhibited absorption through the gland-regions nearest the ileocecal valve those of the upper tract may be restored to function. Yet, the denutrition in a severe typhoid fever so closely resembles that of thyroid-duct obstruction

that we should not count too much upon these glands. Hence, the absurdity of gorging the patient with food that can only do harm.

However, there is one food that in nature does not pass through a digestion-process, and that is the raw white of egg. The albumen in the egg is absorbed directly into the tissues of the fetal chick and assimilated. So, if any food can pass into the blood of a patient sick with typhoid fever, it is this substance.

In desquamation-nephritis, the milk diet possesses a value appreciated only by him who comprehends its rationale. There is nothing curative or even remedial about milk. It never cured anything. The exclusive milk diet merely allows many nephritic patients to get well. It is the exclusion of all other foods that permits the cure to take place; the milk nourishing the patient in the meantime.

In all cases of sickness, there are two considerations to be taken up: (1) How much and what food does the patient need? (2) How much and what food can he digest? The nature of the malady as well as the patient's individual peculiarities offer a variety well calculated to test the doctor's skill and patience.

The problem of the alimentation of the consumptive merits a big volume. Such a one ought to consume fat, but he can not bear it. Push fatty diet, and it loads his liver. Every day his precarious tastes demand something new. The cook-book should be searched for things novel, yet appropriate.

Still another problem is presented by the aging. Appetite remains unimpaired and the needs of the body may be the same, but the capacity of digesting and assimilating foods declines. More careful habits of eating and better selection and scientific preparation of food furnish means of sustaining nutrition. The habit of cold drinks with meals may be indulged when youth possesses a surplus; but age must avail itself of accessories: the artificial heating of the food, slow and complete mastication and insalivation, regular meals and abstaining from food between them, rest during digestion, and other aids. The new way of judging food-values by calories aids in impressing the importance of warm beverages upon the patient.

The easy digestibility of raw and of pickled meats, rice and raw oysters; the quick utilization of sea-foods, raw egg-white, and milk warm from the cow come to be appreciated. Could anybody devise a better diet for the aged than a pint of milk warm from the cow,



morning and evening, a pint of clam, turtle or oyster broth at noon, and a pint of freshly pressed fruit daily? The quantity, which would be too large for most men, is given as a maximum rather than as an average. In the case of many, the fresh milk mentioned might be replaced with advantage by clabber or buttermilk, or junket, or, better, Bulgarian sour milk.

Moderation in the use of caffeine-beverages one learns by experience, without the prompting of people who, having cheap substitutes to sell at extortionate prices, exaggerate the ills from coffee drinking beyond reason. If these drinks really do harm, we have in oatmeal-tea and other cereal decoctions excellent substitutes.

Nutrition is not limited to the question of diet alone. The personal hygiene, to be considered in the maintenance of perfect health, must be regulated: exercise that enhances without exhausting strength, rest that restores without enervating, discarding worry yet giving the mental facilities sufficient effort, control of the emotions without an apathy that removes the incentive to living.

The healthy exercise of functions without excess, and the maintenance of financial ease without the exhaustion of financial stress are matters without whose adjustment the most scientific dietary regulation would be useless. The selection of the home should be included. Many would find life prolonged and happier were they to have a summer home far enough north to escape the vigor of the heated term, and another on the Gulf, where winter's cold would be likewise tempered. Add a garden or farmlet to each, with lake and gulf for bathing, and the number of centenarians should be multiplied.

Blest is he who knows when he has had enough; who values long life with health and happiness at something more than cent-per-cent.

#### DRUG ACTS AND DOCTORS

Directly in line with some of our own preaching through the columns of *CLINICAL MEDICINE* is an editorial that appeared in the June number of *The Medical World*. Brother Taylor, in his usual direct and forceful way, goes right to the heart of this druggists' movement to secure legislation the effect of which will be to injure the physician, discredit him in the eyes of the community, take away much of his power of doing good, impair his resourcefulness during emergencies,

and add to the financial burden of his patients. This movement is of such vital, far-reaching interest to the medical profession, it is so essential that our readers should be familiar with it, that we reproduce the editorial in its entirety, and we urge you to read it through, from beginning to end.

Not only is medical practice getting more and more competitive, but medical practice is getting more onerous and more and more hampered. Not only are educated and uneducated quacks and advertised frauds becoming more numerous, but the handmaiden of the physician, pharmacy, has erected itself into an autonomous body, and even now essays to be a dictator to the medical profession.

One of its first aims is to gain complete control of the dispensing of drugs. By all measurements, the doctor should be rightfully the master of the situation. The medical profession feels that no lawmaking body would be so foolish as to prevent it from *administering* remedies to alleviate disease, and in its confidence in the wisdom of legislators it makes no attempt to thwart the efforts of the pharmacal associations to annul the medical profession's ancient usage.

In Ohio, the legislature has passed a law permitting the Pharmacy Board to examine drugs kept on hand by physicians for dispensing. This was done on the plea that such has been done with the drugs in pharmacies and that physicians' medications should be under the same surveillance. This looks like a step in the right direction, but on careful analysis it is seen to be in the wrong direction. If an examination of drugs is to be made, it should be done at the factory, and the manufacturers should be compelled to *guarantee* their product and print on the label the date after which it should not be used, as is the case with biologic products. It multiplies work to do the examination retail all over the state. It might give plenty of pharmacists jobs, but it is wasteful and will be a financial burden on the people of the state. Ohio physicians had enough to complain about previously.

The physician himself is the man to judge of the benefit derived from the administration of remedies, and no pharmaceutical board's opinion or analysis amounts to anything *so long as therapeutic results are obtained*. The Ohio law puts the shoe on the wrong foot. The Ohio druggists fear to antagonize the manufacturers, for they must get their supplies from the same source.

The druggists' national association is endeavoring to force a bill through Congress, to thoroughly hamper physicians in their administration of remedies. Their bill aims to compel physicians to keep records of a great many drugs, preparations, combinations, tablets, etc.; pay an internal-revenue license as *dealers*; and turn over a duplicate of their list of consumers, accounting to the internal-revenue collector for the last fraction of a grain. The immense amount of clerical work entailed thereby, with absolutely no remuneration therefor to the doctor, is appalling to contemplate by a physician of fair practice, and the man with a large practice will be inundated by the deluge.

The aim of the bill apparently is to prevent the engendering of drug-habitues, but its real object is to compel physicians to write prescriptions instead of dispensing, the pharmacist thus keeping the

record. It is like the horse Lincoln told about to the Illinois legislature. A trickster sold a horse to a man, representing that the horse would set for game like a setter-dog. The two men then went horseback riding, the purchaser on the new horse. As they forded a stream the "setter"-horse sat in the river, but the other horse went on. As the setter's owner demanded an explanation, the former owner shouted back from the opposite bank, which he had reached: "I forgot to tell you that that horse sets for fish as well as for game." These bills are setting for fish that you do not see, while they pretend to set for game.

Instead of preventing physicians from dispensing these drugs, it would be better for Congress to aid in preventing druggists from dispensing them. Thousands of druggists have sold them unlawfully.

But yet no bills are ever introduced by the druggists' associations to prevent drug clerks and soda-water dispensers from counter-prescribing, which goes on wholesale in drugstores. And nothing is said of the intention of druggists to raise prices as soon as they get control of the drug trade.

The sick people themselves are not given any consideration by the sponsors of these bills. The drugs dispensed by physicians are seldom charged for, so that the patients are saved the price of several prescriptions during each sickness. Now, if they must hereafter purchase their drugs and the price of the prescriptions is doubled or trebled, many will land in the poorhouse who might have saved some money. Rather than that, of course, the druggist will very kindly give his advice and sell the medicine at the full price. Some glaring instances of such practice are described in *The Medical World* for February, 1912, pages 46 and 47.

Our legislators had better call a halt on these bills until they find the real purpose behind them. These entering wedges aim to separate the doctors from their patients, the final object being to increase the number of prescriptions for the druggists to compound, while the sick people pay the bills.

The antivivisection campaign was carried out in this way in England until it was ultimately successful, and now Germany and the United States lead the world in medical investigation, England lagging behind, and when the British government wanted experiments performed with snake-venom, it sent to Philadelphia for the purpose, being hampered by its own laws from making humane investigations for the saving of its own people's lives. If all mankind were so foolish there would be no hope for cure of a person bitten by a poisonous snake. The opticians, styling themselves optometrists, are pursuing a similar course throughout this country.

Verily, the legislative halls are alive with duplex bills.

Just a word about the national antinarcotic law. As we told you in our May and June issues, there is still a possibility that the national-drug-trade conference bill may be introduced substantially as prepared by the Conference, yet strong influences are undoubtedly being brought to bear to substitute a bill having the objectionable features referred to by Dr. Taylor.

If a clean bill is finally worked out and favorably reported by the Ways and Means

Committee, we hope every doctor in the country will help to make it a law; but, if it is so framed as to hamper the doctor for the benefit of the druggist, entailing the disastrous consequences to you and your patients that *The World* has painted (and none too strongly), then you should oppose it—demand that it be made right before passage.

This bill is in charge of the Hon. Francis Burton Harrison, chairman of a subcommittee of the Ways and Means Committee. Write him for a copy of the revised bill and study it carefully. The medical profession has a right to be heard in this matter.

Some say that they are "too busy" who are not busy at all. They only *think* they are busy. The really busy man is one who *does things* or who sees that they are done. He knows that the right way to do things is to do them as they arise. It is the easiest and quickest way to do much business and keep everything up to date. If I want to get anything done, commend me to a busy man, always. He will do it or get it done while the other man is talking about it and explaining that he "hasn't time" to do it.—*The Medical World*.

#### THE AMERICAN COLLEGE OF SURGEONS

At last we are to have the long-heralded American College of Surgeons, the movement for the establishment of which originated at the meeting of the Clinical Congress of Surgeons of North America, in Philadelphia, last November. At that meeting a committee was appointed, this consisting of a number of eminent American surgeons—including among them Murphy, Ochsner, and Martin, of Chicago—to perfect plans for the establishment of such a college. As a result of their work, 450 prominent surgeons (500 were invited) met in the city of Washington on the 5th of May and perfected a plan. This plan, as finally given out by the founders' organization, is as follows:

1. The name of the organization is the College of Surgeons.

2. Its object is to elevate the standard of surgery, and to provide a method of granting fellowships which will indicate to the public and the profession that the surgeon possessing such a fellowship is especially qualified to practice surgery as a specialty.

3. This College shall consist of all the members of the corporation, to be known as "fellows," and its general management shall be vested in a Board of Governors; the details of management will be cared for by a smaller body, known as the "Board of Regents."

4. The Board of Governors shall consist of the 500 surgeons invited by the organiza-

tion committee to serve as the founders of the College. This Board shall be perpetuated by election from the membership of the surgical associations of North America. The Board of Regents shall consist of 12 surgeons, to be elected from the governors, these to be divided into three classes, whose term of service shall expire in one, two, and three years.

5. The fellows of the College shall be graduates in medicine who are licensed to practice medicine in their states and provinces, and who have made application for fellowship, such application to be endorsed by three fellows of the College, one of whom shall be a member of the Board of Governors. Every fellow of the college shall be designated as a fellow of the College of Surgeons, and "shall be authorized and encouraged to use the letters F. C. S. after his name on professional cards, professional directories and in scientific articles published in surgical literature."

6. An initial fee of \$25.00 shall be required from each member of the College on his election to fellowship, and the annual dues will be \$5.00.

These are the essential points regarding this newly established College of Surgeons. It is of interest, however, to note that it is purposed to divide the prospective fellows into four classes, namely: Surgeons falling into classes A, B, and C will be admitted without the formality of submitting to an examination. Of these, class A will consist of the founders of the College; class B shall be recruited from the special surgical societies constituting the Congress of American Physicians and Surgeons, and 100 each nominated from the principal surgical organizations of the country. Class C shall consist of surgeons of prominence of five years' standing in the practice of surgery or a surgical specialty and who, in the opinion of the Committee on Credentials, are eligible for fellowship in the College of Surgeons without formal examination.

The qualifications necessary for membership in class D have not yet been formulated, but it is presumed that candidates will be required to take an examination. For the present, membership will be confined to classes A, B, and C.

The first convocation for the formal conferring of fellowship will occur in November, 1913, at the meeting of the Clinical Congress of Surgeons of North America, at which time, it is assumed, the College will be formally announced.

The promoters are very anxious to enlist as many as possible of the surgeons of this country in this movement, the ultimate purpose of which is, of course, to raise the standard of surgical practice. Ultimately the College hopes to cooperate with our American medical schools in the conferring of a supplementary degree in surgery upon properly qualified practitioners. It is particularly anxious to popularize the use of its title, so that the laity as well as medical men may be in a position to discriminate between those who are qualified and authorized to practice surgery and those who are not.

The President of the new organization is Dr. J. M. T. Finney, of Baltimore; the General Secretary, Dr. Franklin H. Martin, of Chicago.

Any person who may desire to become a member of the College, should communicate with the Secretary of the corporation.

This movement is one of extreme interest, and we shall watch its development with sympathy, and with the hope that it may never be tempted to seek restriction of the legitimate rights and ambitions of the general practitioner.

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There is not a man in all this wide world who knows enough about drugs to sentence them to oblivion, as many of the misinformed laity and some of the misanthropes in the profession would fain do.

—Vermont Medical Monthly.

## THE PINEAPPLE AND DIGESTION

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"Pineapple is great." So said Charles Lamb in that inimitable dissertation on roast pig, that has been the delectation of so many pigs since. Moreover, in his *enconium* on pineapple, he treats of it as the only sapid comestible that can bear comparison with the tender suckling from the sty. Unintentionally he ranks pineapple above his piglet, for he says that "the fruit biteth but does not satisfy"; which, being translated, means that one may get enough roast pig to satisfy, but never enough pineapple.

Fancy reaches out daringly and establishes its flag far from our fortified lines. In time, slow-moving science grows up to the outpost, and we find that what we looked upon as a brilliant flight of imagination was a premonition of the truth. Every great advance that is made in the enlargement of human knowledge is first looked upon as a daring innovation or the baseless fabric of an idler's dream. The deepest mystery about innovation is, how it ever succeeded in establishing itself in the minds of the men who lived and studied

and believed they knew the truth, as men did in the days of Jenner, Lecky, Darwin, Pasteur, Lister, Metchnikoff, Burggraefe.

How very slow the world has been in moving up to its leaders! Many times it doesn't move up. Cullen's sage advice, to use single remedies and study their action, for generations remained a mere notation in medical history. Metchnikoff's hypothesis of phagocytosis has passed into the current medical thought and expression. The definition of cancer, a "rebellion of cells," is becoming more and more probable with extended investigation.

*Revenons a nos pineapple.* The underlying reason for Lamb's estimate has been revealed. Like the papaw, this fruit contains a digestive enzyme of remarkable powers. While our own seven autogenous enzymes and those borrowed from "Brother Parker" each break down into usable form some single nutritious principle, those vegetable enzymes attack all. Proteid, carbohydrate, hydrocarbon; meat, starch, sugar, fat; acid, alkaline or neutral solution; papayotin from the papaw and the principle from the pineapple attack, each and all with hearty good will and speedily reduce them to assimilable chyle.

The results of such discoveries are far-reaching, extending into the realm of psychology and the domain of domestic economy. For instance, this one affords the gourmand a refuge against that weapon from which no Milan armor of proof ever protected man, the feminine tongue. Now one may hear with equanimity the admonition: "Now, papa, you've eaten enough. Remember what the doctor said, and how your indigestion will make you suffer." 'Tis to this comes the unanswerable retort: "But this is pineapple."

Impregnable the defense of him whose cause is just. The more pineapple he eats, the less peril of indigestion! So chuckle—but silently—with the hitherto unknown delight of putting one over on the missus, and eat the luscious fruit until the stomach-walls enjoy that happy distention beyond which would lie discomfort. Then, as one lolls back in the easy-chair, comfortable as to digestion and luxuriant in the sense of victory, he may somnolently indulge in dreams. Visions arise of the Flowery Land, where one may bask in sunshine while erstwhile neighbors are muffling in overcoats and rousting out ear-laps preparatory to shoveling snow.

The man who sat under his vine and fig-tree has a rival in him who reposes among his "pines" and watches their apples assume

the proper dimensions, tint, flavors, and succulence. Meanwhile, we stay at home and work—for you! Heigho.

The man or woman who knows one thing well is always in demand and the better he knows that one thing the greater the demand there is for him, simply because the higher he goes on the ladder of knowledge the less company he finds, until, like a piece of ancient pottery, or a portrait by an old master, people are willing to pay fancy prices for him.—J. N. Kimball.

#### PREVENTIVE MEDICINE

Indiana, always alert and in the forefront, purposes to make prevention a definite duty of the medical profession, and for that purpose to organize the entire body as aids to the state health department. Legislation is proposed that puts the moral and physical welfare of the state absolutely into the hands of the doctors. Education is the means, the law its weapon, and the scientific doctors its officers.

No special expense to the state is involved, except some additional cleric force in Dr. Hurty's office. It is proposed to divide the state into as many sanitary districts as there are physicians, making the duties of each comparatively light. Annual reapportionment provides for changes. The duties of the physician are, to inspect in his district the children, homes, shops, public places, sewage, drainage, streets—in a word, to act as health officers. Children suffering and needing more care than the parents are able to afford are to be treated at the expense of the public. All diseases are to be reported, especially the contagious, and this includes the venereal. Those not reasonably cared for are to be isolated. Drug and alcohol habitués are to be registered, and excessive users to be published. Hopeless victims are to be isolated.

District physicians are to inspect the plumbing, drainage, lighting, and ventilation, and the cleanliness of abodes, public places and shops. These reports are to be acted upon by the State Board of Health. The disposal of sewage, garbage, water, food supplies, and market conditions are included. The control of drugs is also placed under the physician. The inspection of school children is extended also. They will be classified according to ability, and taught sanitation, hygiene, and anatomy, especially of the sexual organs.

The power of sterilizing unfit males is placed in the hands of the State Board of Health. Crime will be studied, and this, with prostitution, drunkenness, pauperism, in-

sanity, and other evils, be reduced as much as the development of the system proves to be possible.

The Indianapolis Medical Society has accepted this program, and more than fifty of its leading members have endorsed it.

Whether Indiana will accept so radical a measure remains to be seen. So many evils are assailed by it that the forces of darkness may be expected to rally in opposition. It will be noted that this follows the lines of the plan promulgated in these columns some time ago, to place the medical profession in the attitude of protecting the people against disease instead of waiting for its actual occurrence.

Dr. Hugh T. Patrick, the eminent neurologist of Chicago, in an address given before the Evanston branch of the Chicago Medical Society, said that he invariably dispensed narcotics, hypnotics, and all nerve medicines, and that he had just bought 10,000 tablets of potassium bromide.—The Medical World.

#### WHAT WILL CURE SYCOSIS OF THE BEARD

A valued friend, Dr. Musgrove, of Washington, from whom we have repeatedly received excellent suggestions, sends us this one: A bad case of sycosis menti (one form of barber's-itch), had baffled the treatment applied by the faculty. Some layman advised the victim to rub some cigar ashes into the affected area several times a day. He did so, and within four days every vestige of the disease had disappeared.

There's a lesson in this. Not that cigar ashes effected the cure—the alkali, etc., would account for this—but, why did the learned doctors fail to cure this simple local malady? Its nature and cause are well known; it is within easy reach; all that is needed is the application of a local agent strong enough to kill the parasitic growth, and penetrating enough to enter the follicles and destroy the colonies.

Probably they were "waiting for the serum." Indeed, since we have had sera prepared for acne and for pruritus, and, since chilblains are cured by the internal administration of calcium salts, why not drop local treatment altogether?

Just so. We are determined to make everything constitutional, even if we must ignore experience and reason to do it. Once upon a time the regular profession found itself unable to cope with an epidemic of malignant diphtheria raging in Paris. The only patients who recovered were those attended by

a certain illiterate old woman. So marked was her success that the haughty faculty felt constrained to send a committee to investigate her method. They found she had but one resource—she applied solutions of silver nitrate to the diphtheritic surfaces.

It is not science that is at fault here—it is the lack of science rationally applied with definite object. Given a local disease caused by local infection with a known parasite. Let science ascertain which of its many agents is most deadly to this particular parasite, and in what strength the agent may be applied without injuring the tissues. A cure that left a facial blemish would be useless.

Each of us tends to the preference of our particular local remedy. I learned quite early to value the official, U. S. P. ointment of red precipitate, and rarely would apply any other until this had failed. *Apropos* of its merits I once prescribed this ointment for a patient. A year later he called on me, sleek, well-dressed, prosperous, and informed me he had quit his former work and devoted himself to the practice of medicine. He had but one single remedy, and that was—my red-precipitate ointment! He had a record of over 200 cases, and asserted he had not yet met any that he did not cure by applying "red ointment" in varying dilutions.

Judging by its certain efficacy in styes and boils, when colonies of parasites flourish in the hair-follicles, red precipitate should be effective in sycosis. But an ounce of experience is worth a pound of expectation, and we should like to hear from the field. What have you found more effective? How about Musgrave's cigar ashes? There's no nicotine and no pyridine there, all that has gone off in smoke. While tobacco itself and its smoke may be antiseptic, its ashes are different. Anyhow, tell us of how *you* treat the common skin ailments. Who will join us in this symposiums?

A physician who does not have faith in medicines does not know them, and the sooner he severs his connection with the profession the better.—Dr. O. B. Hall.

#### THE LITTLE FOXES

Were one able to analyze the causes of any man's failure, it would be found that the deciding factors were comparatively trifling. It is the little things that count. "For want of a nail the shoe was lost; for want of a shoe the horse went lame; through the horse's lameness the message was delayed; for want of the message the battle was lost; and



because of the loss of the battle the kingdom was lost."

While I was moving into a new house a woman rushed in with a child choking on a rubber balloon drawn into the larynx. Taken unawares, I had not even a penknife with which to open the larynx, and by the time another doctor reached the scene the child was dead.

One forgetfulness—the mother's hair—rendered nugatory an elaborate disinfection after scarlatina, and the children, who had been sent away, upon returning home promptly came down with the disease.

How many an infection has there followed a not quite perfect disinfection of instruments, hands, clothing, gloves, and the like.

How many families have you lost to competitors through little neglects, little inattentions, little delays, little mistakes, little undervaluations of complaints. Recollect how Mrs. Jones expressed herself about your letting Billy suffer half an hour with his colic while you were "spooning" with "that hateful little Jenny Wren"?

Mark Smith's acne and hypochondria did not impress you as more than a nuisance, until the young new doctor investigated, found a urethral hyperesthesia you never looked for, cured it and the youth at the same time and won the latter's undying gratitude.

Lucy Brown spoke to you about her bad complexion; you paid no attention. Then old Dr. Frayley relieved her constipation, and left her blooming so roselike that she got married before spring—and Frayley attends the family.

Mrs. Gross's baby howled night and day; you prescribed paregoric, uselessly. She took him to a city pediatricist, who examined the child, found a tight anal sphincter, dilated, cured the kiddy, and pocketed a clean twenty-five dollars that would have come quite handy to yourself.

Ike Weir told you about his headaches, vertigo, and nausea; you handed him a cathartic and promptly forgot him. He felt better; but the next week he died of uremia. You lost that chance.

Lizzie James complained to you of flushes, and you gave her macrotin. But the maiden fainted at the church-bazaar, and Dr. Melinda Baker—female lady doctress—cut Miss Lizzie's corset-strings, and bluntly told her not to get new ones. You lost out.

You treated Carrie Moore for nervousness and insomnia for quite a while, till, at last, her mother took her to an illiterate old quack

over at Hickory Corners. He heard the story, looked the girl over, then told the mother nothing ailed the child—that she had something on her mind. Mother needed no further aid, she diagnosed the trouble in five minutes' straight talk. You—?

There are no trifles. Cast a pebble into a pool, and every drop of water on earth feels the disturbance. Everything has its meaning. The successful physician must be a psychologist, to read between the patient's words; a Sherlock Holmes, to trace the reality back of every shadow; a veritable Admirable Crichton, in the variety and the perfection of his knowledge and the practical character of his accomplishments.

I would like to add that the Ideal Doctor ought never to die—but, in truth, the Ideal Doctor never has lived.

Beware the scandal-monger—the man or woman who is always seeking, openly or insidiously, to injure other people. Usually this person is circulating lies, taking pleasure in the distortion of simple facts so as to give them a false and sinister meaning. Trust him not.

#### TYPES OF MEN

France tells us that there are but four types of men—cerebral, muscular, respiratory, and digestive. Health and happiness depend upon enjoying much air, many calories, great exercise or active cerebration, according to one's type. Thoreau says: "Victory over declining health consists in keeping each type in its especial environment."

The muscular man, like Napoleon, succeeds as long as his activity has free scope, but rots in prison. The respiratory man voyages over the seas; the cerebral type gorges on visual and auditory impressions, like Edison; while the digestive species, like Gautier, puts away food in wholesale lots. Rossini's music is digestive; Mahler's cerebral.

Shut the respiratory in close rooms, and he betakes himself to alcohol; as does the digestive, who loses hunger and digestion, and the muscular, whose fibers become fatty from disuse. Marriage between like types prevents affinity entanglements and insures superior offspring. Unions between unlike types populate public institutions for the unfit and antisocial.

The reproductive type would seem to deserve a place, but probably this element forms an important part of all. Nevertheless, there are many in whom this trait predominates rather than any of the four functions designated.

# Leading Articles



## Giving the Patient His Money's Worth

By MAYNARD A. AUSTIN, M. D., Anderson, Indiana

*EDITORIAL NOTE.—The problems of greatest interest to the medical profession these days are economic problems. One that is interesting many physicians is that of "lodge" practice, which Dr. Austin discusses thoughtfully in this paper. He also takes up the "medical firm"—the voluntary professional association of a number of doctors for more efficient service and mutual profit. It will pay you to read this carefully.*

SHOULD one pick up the directory of an average city and look into that portion of the book devoted to lodges, he would see a number of names that would remind him of the piece of poetry we used to hear, that ran something like this: "Oh, we went to the county fair, all the birds and beasts were there. They came in two by two, the elephant and the kangaroo. . . ."

Besides the black, the white, and the tan branches of all the various older fraternal organizations, the last few years have seen the arrival of a new series, which take for their name, not one of the heroes of ancient or medieval history, but going into the highways and the by-ways and the wilderness, and, considering special virtues, they have seen fit to follow in the footsteps of some animal or the flight of some bird. We now have the Moose, the Elk, the Camel, the Buffalo, and the Bison, collected together in various parts of the country. The Eagle, the Owl, and the Oriole, while not all students of aviation, have many comfortable nests in various states.

With most of these later organizations, social opportunities are secondary to the special benefits that are being offered as inducements to membership. These benefits consist in a weekly payment of from three to six dollars during sickness or accident producing complete disability, and free medical service by a lodge-doctor.

A few years ago fraternal insurance probably carried more individual risks than the old-line companies. Nevertheless, fraternal insurance was an injustice because it offered something for less than it was worth, and

today the last of the originally great fraternal insurance companies finds it necessary to do that which they said would never be necessary; but, yet, which they cautiously and conservatively retained permission to do with every policy-holder. One by one, they are raising their rates, until now they are but slightly below the nonparticipating and investment-eliminating rates of any of the old-line life-insurance companies.

One authority speaks of fraternal insurance as follows: "The assessment company lives from hand to mouth, and, while daily adding to its obligations, is making no adequate provision to meet them as they fall due in the future. The old-line system requires larger premiums to begin with, as it bases present losses just the same as assessment companies, but in addition accumulates a reserve for every policy-holder on its books, and thus makes sure mathematically, according to the mortality tables, of its ability to meet all losses in the future."

### Enter—Free Medical Service

With the fraternal-insurance feature becoming a questionable asset, and with social opportunities less in demand, because of the prevalent cheap entertainment offered by the picture shows, some other inducement had to be offered. And this in nearly every one of the later lodges has been "free medical services."

Considering the doctor and the man who buys his medical services by the year, it is possible that in some localities such a system is a beneficent one and, without it, certain isolated communities, especially in the mining

and lumber regions, would not be able to secure proper medical service, unless a competent man was guaranteed a salary by the mine owners or the lumber men. On the other hand, the physician who engages in this class of work must expect himself to be imposed upon, for this class of people become more conservative of themselves when they can consult or call in a physician free of charge, than when they expect to pay him for every requested service.

Talking from the experience of a doctor engaged in this line of work, a physician said that he had been called out one night and found a woman suffering with a common headache—nothing unusual, nothing uncommon, and nothing necessary to demand that he should have made the trip. He said to her, "Had you had such a pain in your leg, would you have called a doctor?" and she answered, "No." But she further told him that he was paid to look after their medical needs and she thought he ought to see her if she was suffering in any way.

#### Poor Service from Poor Men

In thickly settled communities where there are as many doctors as there are in average portions of the United States, and who number one to about every six hundred people—or about one physician to every one hundred and twenty-five families—there is little excuse and no present economic necessity for asking for a physician's services for the little or nothing that is paid to him by many fraternal organizations; and, with but few exceptions, the members of the profession who accept such positions render service that is worth no more than they receive in return.

It is a certainty in mechanical work, and has been proven especially in factories where high-grade watches are made, that workmen on cheap movements cannot be transferred to departments where high-grade work is demanded; and our best watches are made only in those factories where nothing but high-grade movements are put together. We get good time-pieces from other factories, but no man can do two grades of work, and only too few men are capable of doing high-grade work at all times.

A physician is no exception to this rule, and the doctor whose time is occupied chiefly in contract work with people who think his services are worth little or nothing usually flatters them by showing them sooner or later that their opinion is correct.

In the practice of medicine, where scientific exactness is possible only in a few con-

ditions as determined by the addition of laboratory investigation, the element of best service should concern the layman far more than so far it has done. It is true, as many men have told us, that people died of old age long before physicians became a necessity, and in the majority of cases even now it is probable that the average sick person would recover without any special medical treatment.

This last statement must be qualified, however, by the fact that surgeons and physicians are annually saving untold numbers by reason of their ability to overcome such diseases as diphtheria, hydrophobia, and lockjaw by means of special serums, and because they now diagnose and have patients operated upon for such conditions as appendicitis, gallstones and gall-bladder diseases, ulcer of the stomach and the intestines, inflammation of the pancreas, and abscesses in pelves of women. These latter patients a few years ago would have been permitted to die and the cause of death masked in terms such as inflammation of the stomach, inflammation of the bowels, peritonitis, and the like.

We hear of certain members of the profession telling women patients, even now, that they have "female complaint," without the physician knowing or apparently caring to know which of the various pelvic organs are affected and what was the cause of the disturbance.

We had a time when stomach, gall-bladder, liver, pancreas, and intestinal disturbances were all treated as "indigestion," but now the doctor who uses the term "female complaint" or the word "indigestion" does so because of ignorance that is inexcusable. Perhaps patients showed signs of jaundice and then they were doctored for liver trouble, but we now know that less than ten percent of our liver-patients ever get yellow. We also know that less than ten percent of the people who complain of their stomach have any organic stomach disease, the condition being a reflex one and that the pancreas, the appendix or gall-bladder is in the majority of cases to blame; or, if not that, then the stomach is sympathetically affected because of some general nervous disturbance.

With these facts known to those who have had a thorough training, it is humiliating to the better members of the profession constantly to hear of unnecessary operations, or to have necropsies held, showing that the patients have died of neglected or unnoticed minor conditions the importance of which

was not appreciated by the doctor in the beginning.

#### The Doctors Who Seek Appointments

There are three classes of men who seek appointments with fraternal orders: First there is the young man just out of college, who needs money and wants experience. But I know of no young man who has taken up this work soon after graduation without falling into the slipshod easy way of snap-diagnosis due to insufficient examinations; and his later success has always been a questionable affair.

The second class of men are those who have been failures previously and to whom the addition of a lump sum yearly means the difference between a bare living and a little extra money. Only rarely do we find a man—the third class—who, having an otherwise good practice, from selfishness or avarice accepts the position because he wants all he can possibly get, keeping the other fellows from getting anything he can prevent them from having.

The average fee assessed against the members of these organizations for medical services rendered to members and their families amount to the munificent sum of less than one cent a week per member in an average family having four in number. It is true that a professional man, when he makes a charge, charges what he thinks his services are worth; and, yet, when we turn the question around and ask the lodge member what he considers the care of his family worth, it is rare that you will find a man who will acknowledge that his wife and his children are not worthy of more than fifty cents' worth of medical service in a year.

In Pennsylvania alone, there are more than two hundred thousand persons belonging to such families.

Considering the cost of service as based on the exact standard of risk assumed by industrial insurance companies, averaging family ages to one standard at age thirty-five, one dollar a month would buy only \$305 as an endowment at age seventy-five. The average lowest-paid laborer's income is near \$450, so that such a risk should be worth equally as much to care for as to protect from death, namely, \$1.50 a month. This sum, however, pays for only the risk of one person. The physician accepting such a medical risk does so for families averaging four or more members.

In conversation with one of the supreme officers of one of these fraternal organizations

not long ago, the gentleman informed me that he thought the doctor who got the job of lodge-physician had a cinch, and he explained it in this lucid manner:

"Now, you know, doctor," he said, "that such men as I and dozens of others are going to employ the same doctor that we have always had and pay him the customary fee. The money that we are assessed in the lodge we pay over to help the other fellow pay for his medical services. There are also a lot of single fellows who join a lodge and are seldom at home and yet they keep up their lodge dues and get no medical benefits. Then, of course, if the doctor had an enemy or some fellow doesn't like him, he won't call on him for services; and there are others who won't like him as a physician even though they are not unfriendly to him otherwise. So, when it comes to the final showing, the doctor who gets the job is well paid for the actual work that he does, for only a moderate proportion of the people who pay him for his services as a lodge-physician, use him."

This man failed to mention, however, that "he and a dozen others" were making more out of the lodge than any number of their doctors; and I told him that, if the lodge-physician wasn't good enough for his family, he should not ask another man to sacrifice his family in the hands of a person whose skill was questionable. Has not the other man's family just as much right to demand the best services as his own family demanded of him?

Then, again, the average lodge member calls the lodge-doctor because he had no chance to know that there was a difference in doctors. Again, that class of men who paid their lodge dues and were away from home always call on the lodge-doctor, if there is one in town, for services when in need of any, because this class of men seldom make inquiry as to the various physicians in the community and their qualifications. Furthermore, that third class, whose unfriendliness prevented them from accepting the services of the lodge-doctor, should have the right to refuse payment for something that they would not use.

#### How Good Lodge Medical Service Might be Secured

Considering the present situation in America as it is being changed by the growth and development of the German aid societies and the English friendly societies, there is undoubtedly a safe plan that might secure good services to the members of these or-

ganizations, but not for the price that they are now paying.

Members of any organization should be given an option on the medical benefits, and these benefits should be limited to members earning less than two dollars a day. The members of these societies should also have the privilege of calling their own or any one physician, and payment should be made by the lodge for actual service rendered. No physician's services should be considered acceptable to a lodge unless that physician is a member of his local, county and state organization. It is true that many men belong to these medical organizations who are unworthy of membership. On the other hand, these organizations demand a certain standard of medical education and professional character, and they are the only safeguard to which the community can refer. There may be a few good men who do not belong to the medical society, but, if they are good men, they can, and should, belong.

#### A Consultant Should be Employed

A lodge expecting to do the best for its members in a medical way should not only permit free choice of physicians, but that lodge should have one of the best physicians employed as a consultant who would be expected to make at least one visit to every member applying for sick benefits. This consulting physician would serve the double purpose of confirming diagnosis of the member's illness and render impossible an overcharge on the part of the attending physician. All accident-insurance companies have such a consulting physician in every community. They may have someone employed to look after all their risks, but these risks are checked up by a second man.

As to the cost of such services, it is estimated that a safe limit could be placed at one dollar a month. Fifteen years' experience and personal inquiry of many other physicians show that the average family who would desire such lodge affiliation for medical benefits have paid less than ten dollars a year for medical services, and that ten dollars a year per family from all the families on the books of any physician whose practice would be made up of those who would accept such contract service would greatly exceed his actual income.

Lodge dues proper in most lodges amount to about four dollars a year. A charge of fifteen dollars per year per member would give ample security for lodge dues, pay a capable physician to act as consultant and

referee, and pay the free-choice physician for his services at the rate of the average fees in most parts of the United States. Certain occasions demanding special services, where plenty of time to prepare for the event are known in advance, should not be included in this charge. A moderate fee for surgical services could be allowed under these benefits, however.

Considered from every possible standpoint, there is no economic necessity for contract practice as demanded by the various so-called fraternal orders. Considered from a social standpoint, there is hardly any excuse for the existence of the lodges themselves. They are the evolution of an enthusiastic brain, which sees in them the possibilities of a lucrative position as head officer or supreme disburser. Business men are approached first in seeking members, and the average business man who is known as a "joiner" charges his lodge dues and assessments to his advertising account.

If it is actual protection that the less-paid member of society desires, he can get it much cheaper from a regularly organized sick-benefit society or accident-insurance association than he can from a lodge. With the former, it is a matter of business to pay benefits. With the lodge, it is a matter of charity.

*The wage earner who pays six dollars a year for lodge dues that pay him four dollars a week for thirteen weeks could get at least ten dollars' benefits for fifty weeks' disability at the same cost if he paid the insurance as he pays his lodge dues. The cost of the policies that he usually sees is double what his insurance risk actually is, because he demands that it be collected, and collection charges in some companies are greater than indemnity claims. If the great commercial-traveler's organizations can pay \$25 a week benefits for accident, and other organizations can do the same for sickness at a cost not exceeding \$8 a year, the lesser-paid members of society could obtain proportionate less sums according to their income, at a cost less than their lodge dues, if they so desired.*

#### When Jealousies Between Doctors Disappear, Then——!

Some of these days jealousies and enviousness among physicians will, from necessity, disappear, for their independence is being more limited by the state and nation every year. In some localities, where a number of older and younger men are striving to maintain separate establishments and are dupli-



eating their expenses in every particular, five young men one day are going to get together and settle in that community. They will rent one suite of offices, they will use one phone, they will have one office attendant, and they will employ a trained nurse.

One of these men will have received proper training and proper experience to justify himself in doing major surgery. Another will have qualified himself for special work in obstetrics and the diseases of women. Still another will have had not alone the customary laboratory training, which all physicians are supposed to receive, but he will have completed the ordinary training by extra work, making him competent to handle electricity and to use it in diagnosis and treatment of those diseases that respond to galvanic, faradic or ultraviolet vibrations. He will be able to use the X-ray for diagnosis and treatment of those cases where it has been found useful. The fourth one in the company will have improved himself by special work for diagnosis of internal medical cases, and his eyes, his ears, and his fingers will tell him all that a skilled diagnostician should find out. The fifth should be equally as good a diagnostician, but should be able to supplement the work of his confrères, accepting limited responsibilities during periods of frequent vacations which these men will take in turn. These vacations will not only be for rest and variation from the routine, but they will permit each man to inspect at frequent intervals the work of the "bigger man" in the bigger cities.

A competent nurse and a competent stenographer are necessary factors in the success of such a group of young men. The stenographer should be capable of grouping case-histories, making case-histories, and taking reports of examinations. A nurse is desirable because, when thoroughly trained, she makes the best anesthetist; for the average trained physician, in giving an anesthetic, too frequently is interested in the surgical problem to the extent of forgetting his duty as anesthetist. The trained nurse, without knowledge and interest in the surgical problem, feels the responsibilities of her work in giving an anesthetic, and has replaced the medical graduate in nearly every large clinic. Her services are in equally as great demand in being present during various examinations, and her work is more acceptable to many

patients in doing routine dressings than the average physician's, whose time is more valuable.

#### Advantages of the Medical "Firm"

In such an arrangement as the above, a patient would have the benefit of all the knowledge of each member of this group of men. As to whether they should be specialists or not, that is a question that their desires in the future and the call upon their ability could determine. A specialist whose work is routine, based on a routine training for his speciality, without the broad foundation and knowledge gained in contact with general practice, is too frequently over-balanced in his opinions, favoring conditions demanding his services as a specialist; so that his opinion is not to be considered impartial. These men of whom I speak should be all-around men, with a thorough general hospital training first, with special training, second, all willing to share honors and having ability to forget jealousies.

Such a firm or such a combination of professional men not only would demand the respect of the community, but would receive financial benefit from a large radius. A patient expects a physician to examine him, and to take the necessary time to make a thorough examination. If this physician then calls in a second man who probably gives him less time but as thoroughly considers his case, and then possibly gives the patient the services of a third or a fourth physician, who makes other tests, to exclude factors in the case, then that patient will leave such a man or such an institution feeling that a consultation fee has not been paid unwisely. His examination has been such as to give him every benefit of every possible question that could bear upon his present condition and his future prospects for relief, to say nothing of excluding errors in diagnosis of possible surgical conditions.

This is not a Utopian idea—it is a situation that has had its reward in at least one city in this country, and not only from a financial standpoint, but from a professional one as well. These men have made their organization so perfect that the possibilities of doubt and mistake have been limited to the minimum, and their services are now demanded by more people than those of any other professional men in America.



# An Unusual Reflex Cause of Asthma

*With the Description of an Illustrative Case*

By BOARDMAN REED, M. D., Los Angeles, California

**S**PLANCHNOPTOSIS—the term preferable to the more commonly employed enteroptosis—is the rather formidable technical name for a very prevalent trouble with which a large proportion of modern civilized women and many men are more or less affected. Splanchnoptosis means a general prolapse or sagging of the abdominal viscera—the stomach, the kidneys, and the colon most frequently, as also occasionally the liver and spleen, and sometimes even the heart. This condition is much more common in women than in men, and in the former, when extreme, frequently pushes and holds down the uterus also.

The two principal causes are overloading of the stomach in both sexes, and the use of the corset and tight waistbands in women; men have brought on the trouble, in a similar way, by leaving off suspenders and holding up their trousers with tight belts. Visceral prolapse, my experience shows, is at least four times as prevalent among women as among men.

When I discussed this subject in the August, 1912, number of this journal, I gave a fairly full account of the mechanical treatment which any physician should be able to employ with success as a rule. I mentioned also the chief symptoms, including dyspepsia and constipation, besides possible diarrhea, which latter sometimes results from an old chronic constipation.

## Asthma Due to Splanchnoptosis

However, I omitted to speak of one very unusual symptom, namely: chronic asthma, a few severe cases of which I have found to result from displacements of the abdominal organs, and which would not yield to any treatment until the displacements had been corrected. It has long been known that asthma may be caused by chronic indigestion, but I do not remember to have seen in the literature any mention of the visceral ptoses as a cause, excepting the brief reference, in the last edition of my own book, to two such cases.

I have notes now of a number of cases from my own practice, and know of three others, in which the attending physicians called me

in consultation. Two of these latter patients were cured by Dr. B. C. Davis, of Monrovia, California, by means of the same manipulations I have described; the third one recovered under the care of Dr. J. H. McBride, of Pasadena, and by practically the same method.

Only one of these cases of asthma caused by visceral displacements need be reported in full; but this was so extraordinary in many ways that the report necessarily will be lengthy. The details of this case in themselves make interesting reading, but, in addition, they teach a most valuable practical lesson as to the need of great care and thoroughness in deciding upon the diagnosis in every instance of obscure disease besides showing the folly of any patient's being trusted to the treatment of alleged healers who do not know how to make any diagnosis, either good or bad.

## An Illustrative Case.

The important case in question concerned a lady, age 34 years, who, in August of 1907, was referred to me by Dr. Jackson, a successful regular physician of Hollywood, near Los Angeles. The woman's family history was not good, her father having died of pneumonia at the age of 53, while one brother, as also two sisters, were asthmatic. Her mother was then said to be living at the age of 68, but had a weak stomach. This old lady's trouble possibly resulted the same as in her daughter, from some visceral displacement; for my experience shows that such troubles are prone to run in families. I find that when a mother has prolapsed kidneys, stomach or intestines, singly or combined, some or all of her daughters are likely to present a similar fault; unless, indeed, they have learned to live more hygienically, especially as to diet, dress and exercise.

For ten years (that is, ever since 1897) the patient had been a sufferer from asthma and had been under the care of various physicians, regular and irregular. They all had failed to relieve her, and I, too, soon had to give up the case myself, having decided, after a careful examination, that she could not be cured without the aid of a surgical operation.

It was found that both her kidneys were loose and movable and the stomach and transverse colon had become displaced far downward. The effort to replace the organs, by means of the special manipulations that generally have effected this, after considerable persistence, failed entirely. Applications of the galvanic current, which sometimes will soften and dissolve adhesions, as well as vibratory massage, also failed. The adhesions evidently were too strong to be overcome by the usual mechanical means. I urged the patient to submit to operation, warning her that other treatment must continue to be nugatory, since the usual medicinal remedies had already proved useless.

#### An Operation Is Recommended

I saw no more of the woman till the following summer, when one of her family informed me that she had recently returned from a trip to the middle West, where she had had two remarkable experiences, and that she now was about to be operated upon by a surgeon in Los Angeles. It transpired that while visiting a relative in Dakota she came under the care of a local physician, and he brought to see her a distinguished Chicago surgeon who chanced to be sojourning in the same town. This surgeon examined her, and is declared to have said that he found no cause for an operation. The woman was said next to have visited a city in which there is a hospital famed for the skill of its surgeons, and to one of these she told her sad story and requested that an operation be performed to relieve the displacements I had diagnosed. She was referred for an examination to one of the assistant physicians, who is said to have reported that he also, could find no cause for operating.

By this time the suffering woman naturally had reached the conclusion that my diagnosis was wrong; however, the Los Angeles surgeon first mentioned in this narrative was finally consulted. He inflated her stomach (as I had done—and as I always do in difficult or doubtful cases—by giving her to drink first a solution of sodium bicarbonate and then one of tartaric or hydrochloric acid), and in this way easily demonstrated the very decided displacements present. I was present, by invitation, at the operation.

When the abdomen was opened, the condition revealed was as I had diagnosed the year before, except that there was found, in addition, a suspicious-looking appendix and two little beginning ovarian cysts; all of which were removed. The cervix was

found to be somewhat torn, and this lesion was repaired. By this time the patient showed that she was bearing the ether so badly and was so nearly exhausted that further work had to be stopped. Hence, the principal operation, for which she had been anesthetized, had to be postponed.

The asthma persisted. The patient did not come under my care again until a year and a half later, in March, 1910, when I was called to see her at a sanatorium. Her trouble was now much aggravated and her suffering every night from dyspnea was pitiable. I could only palliate her distress with the help of anodynes, and again urged the needed operation. Then I heard nothing more of her till in March, 1913, when I learned that Dr. Beckett of Los Angeles, had operated upon her successfully upon January 8 last.

In a letter to me Dr. Beckett reported thus: "An old ulcer scar in the stomach-wall just below but not in the constricted pylorus. Gall-bladder normal. Left kidney movable. Ptosis of stomach and transverse colon. Right lobe of liver elongated with thickened mass. Lower end of right kidney anchored, and adhesions between liver, stomach and duodenum freed. Patient made an uneventful recovery."

The operation, he stated, had proved a success, and the stomach, though not stitched up in place, as I had advised, had evidently gone up and remained in nearly its normal position.

When later I accidentally met the patient, she told me that she had been almost entirely relieved of her dyspnea and was regaining her flesh and strength, having only a little annoyance from the old trouble when she was much fatigued. She added the very interesting information that, among the numerous doctors of various schools whom she had consulted since I had told her that only an operation could ever cure her, there had been a number of osteopaths, naturopaths, etc., and besides, in all, ten different Christian Scientists; that she had told the latter the medical doctors had given her up, that now was their chance, and that, if they (the Eddyites) could cure her, to go ahead. They each in turn then went ahead, and kept going as long as she would pay them.

#### A Word About Bogus "Healers"

What ought to be said of such bogus healers, who, in utter ignorance of all knowledge of anatomy and physiology or of medical science of any kind, could thus sacrilegiously, in the

name of the Lord, go on extorting money from a credulous suffering woman? As for the "Science," which they so shamefully misuse, the shades of Darwin, Huxley, and the other real scientists of the world who have gone to their reward, should nightly haunt such pretentious impostors. Even though a small minority of their duped patients are hoodooed by their incantations into fancying themselves improved, the humbug and venality of the system are so manifest that one may well be pardoned for a burst of righteous indignation at the thought of them.

The fact that even broadly educated and well-trained physicians, who have spent four to six or seven years in studying the human body and the nature and cure of disease, may sometimes make slips, is no excuse for fakers who have the effrontery to deny that any disease exists and then to charge stiff fees for attempting to cure it.

Others of the sectarians, notwithstanding

the shortcomings of many of them as to their training, do more or less good, and often in diseases other than hysterical affections. The osteopathic manipulations are useful under certain circumstances, and our masseurs will soon have to add those methods to their own; for the fundamental principles of the science and art of medicine do not allow us to ignore any measures or remedies of proven value, in however limited a degree.

Many able physicians of the regular school are devoting attention to the study of the treatment of certain diseases in part through hammering or otherwise manipulating either the vertebrae or the spinal nerves at their origin. Abrams has written a strikingly original and useful work, and he goes much further in this direction than any of the Osteopaths have done. Madison Taylor, of Philadelphia, also has made valuable contributions to the study of this subject and all conscientious, thinking physicians are ready to accept useful suggestions from any source.

## Occidental Versus Oriental Curdled Milk

*The Advantages of the Bulgarian Bacillus as a Therapeutic Agent*

By T. W. WILLIAMS, M. D., Milwaukee, Wisconsin

REFERRING to recent articles, in *The Journal of the American Medical Association*, one, by Dr. Alexander Armstrong (Mar. 29, p. 1015) and the other by Dr. E. Stuver (Apr. 13, p. 1244), the former suggesting a small glass churn for making buttermilk when needed, and the latter recommending spontaneous curdling of the milk in the open air, I wish to point out that it is not quite clear whether these writers suggest the occidental buttermilk produced by these methods as a substitute for the oriental curdled milk, for combating the proteolytic flora of the digestive tract, or simply as an excellent aliment for preventing nitrogenous putrefaction.

My object in writing is, to point out a common error of physicians, that of simply advising patients suffering from intestinal indigestion and autointoxication to drink "buttermilk"—as if it were a matter of indifference what kind of curdled milk was used.

Diminution of the saccharolytic aerobic bacilli and the simultaneous appearance of proteolytic anaerobic bacilli in the intestinal

flora in autointoxication is a characteristic of the production of nitrogenous putrefaction. Metchnikoff has taught us that, on account of the small quantity of nitrogen introduced into the intestinal system by the vegetarian and lactofarinaceous regimens and the lactic acid resulting therefrom, the intestinal contents are modified in a manner to render them an unfavorable medium for the growth of proteolytic bacteria. Those microbes which produce sugar fermentation and form lactic acid being the natural enemies of proteolytic microbes, he suggested the introduction of microbes harmless in themselves but detrimental to the development of proteolytic anaerobics of putrefaction. But it is not sufficient to introduce the common lactic-acid bacillus, of ordinary curdled milk, as this organism does not survive in the human intestine.

Many pathogenic microbes, as Metchnikoff asserts, are ingested with impunity, frequently in large quantities—such as the comma bacillus of Asiatic cholera and the tetanus microbe, because they perish in the intestinal canal. This emphasizes the point that,

to combat successfully the proteolytic microbes which cause autointoxication, we must, as Combe teaches, introduce into the intestine a culture of lactic-acid microbes that are: (1) antagonistic to the proteolytic anaerobics of putrefaction; (2) inoffensive to the host; (3) capable of continued existence in the human intestine.

Intestinal infection in the large majority of cases is a mixed infection caused by a great variety of proteolytic microbes, no particular species predominating, and against which Metchnikoff advises the acclimation, in the intestine, of the harmless saccharolytic bacilli. The development of these lactic-acid microbes is favored by the lactofarinaceous diet.

#### Ordinary Curdled Milk Not Sufficient

The general impression that any kind of curdled milk answers the purpose equally well is, therefore, erroneous. The curdling of milk spontaneously in the open air is principally effected by the action of a lactic-acid bacterium, which does not, like the Bulgarian ferment *maya*, the Tartar ferment kephir, and the Egyptian ferment *leben*, act bacteriologically, but simply as a chemical agent, through its lactic and succinic acids, as explained by Combe.

This bacterium *lactis* is a small, delicate microbe that never survives in the large intestine, being unable to cope with the proteolytic bacteria inhabiting it.

The bacilli Massol of oriental curdled milk, on the contrary, are powerful, robust bacilli which battle successfully with the proteolytic bacteria of the colon, as is shown by the fact that they are in evidence in the stools. This is what gives the Bulgarian curdled milk its great superiority over occidental curdled milk in treating intestinal troubles due to a proteolytic intestinal flora. It is not merely an aliment, but a culture-bouillon and antiputrefactive, containing, like ordinary curdled milk, lactic and succinic acids, but in larger proportions.

The ordinary *bacillus lactis* requires about twenty-four hours to curdle milk at 37° C., while the *bacillus bulgaricus* requires only twelve hours. The objections of the good housewives to putting "bugs" in the milk

to "turn" it would be less vehement, perhaps, if they knew that its spontaneous souring in the open air is effected in exactly the same way by almost the same kind of "bug."

#### Advantages of the Bulgarian Bacillus

Yoghourt, or Bulgarian curdled milk, can also be kept up, as is the custom throughout Turkey, Greece, Servia, and Bulgaria, by inoculating the day's milk by adding a little of the previous day's curdled milk to it, thus transmitting the culture from day to day, provided it is kept at the right temperature; otherwise it deteriorates and has to be made fresh from the pure culture. The *bacillus bulgaricus*, also called the *bacillus* of Massol, now generally used for making curdled milk, was selected by Professor Metchnikoff on account of its great size, it being a giant among microbes, and also for being much the best producer of lactic acid. It does not belong to the normal flora of man, but is capable of being implanted artificially in the intestine, acting as an efficient antiputrefactive.

It is probable that the tablets containing the *bacillus bulgaricus*, as now commercialized, are not the pure culture, as that particular microbe has the fault of attacking fats, giving the milk a tallowy taste which renders it unfit for consumption. On this account Metchnikoff combined with it the common *bacillus acidilactici*, in order to counteract this action.

Curdled milk prepared from raw milk is certainly more palatable, but raw milk contains many microbes, some of which, the tuberculous, for instance, are harmful, so that it is better, upon the whole, first to boil the milk for a few minutes, which, Metchnikoff says, kills all the tubercle and butyric bacilli. Pasteurizing milk at 60° C. does not always destroy the two bacilli last mentioned.

The three lactic-acid organisms used for inoculating milk are, the micrococcus, the Bulgarian (or Massol), and the streptobacillus. All three produce inactive lactic acid ferments, but the *bacillus* Massol is the most powerful of all. These ferments are desiccated, pulverized, and made into tablets, and they may retain their vitality a year or more in that shape.





# Gonorrhea in the Female

## *Its Recognition and Treatment*

By E. J. ANGLE, M. D., Lincoln, Nebraska

*EDITORIAL NOTE.—This completes the discussion of the treatment of gonorrhea, so entertainingly handled by Dr. Angle in the series now drawing to a close. Next month he will conclude with a discussion of the sociologic aspects of gonorrhea.*

THERE probably is no disease which presents so many widely varying clinical pictures to tax the skill and judgment of the medical practitioner as gonorrheal infection in the female; and, while gonorrhea is similar in its behavior in women to that in men, the anatomical structure of the genitourinary organs of the former is so different as to introduce many new factors and problems.

In the female, the extent of the mucous membrane with its intricate folds and the diversity of glandular and epithelial tissue are enormous in comparison with the male genitourinary system. Besides, the social status of woman also complicates the problem of treatment: women seldom seek advice and continue treatment with the same freedom and determination as do men; this, perhaps, being from shame, indifference or ignorance. The vast amount of untreated and uncured gonorrhea in the female is one of the serious sociological problems of the day. "Men claim themselves to be the stronger sex. Outside of sexuality that may be true, but from a sexual standpoint, if woman were not the stronger, a virtuous woman would be hard to find inhabiting the universe today. 'No man will have the hardihood to deny that one woman of average looks, grace and manner can seduce, overcome and lead into forbidden paths fifty men, to every woman that any one of the fifty men can subordinate to his passions.'" Time does not change human nature, the rustle of the silk petticoat is just as seductive today as it was in the time of Nero or Cleopatra.

### A Few Anatomical Considerations

A brief review of the character of the epithelium lining the genitourinary tract is necessary to explain the frequent localization of gonorrheal infection at certain points and its absence from others.

The gonococcus has a particular affinity for cylindrical epithelium, while pavement-epithelium offers little inducement for its habitation. Skene's glands, at the mouth of

the meatus, are lined with cylindrical epithelium. The urethra, covered by pavement-epithelium, contains numerous mucous crypts, the analog of Littre's glands in the male. The Nabothian glands of the cervix and the glands of Bartholin are lined with cylindrical epithelium. The vulva, vagina, and intra-vaginal cervix are covered with pavement-cells. This region is made further inimical to the gonococcus by the normal vaginal secretion, which is rendered acid by the lactic-acid bacteria of Doederlein. The uterine canal from the external os to the opening of the tubes is lined with a simple layer of ciliated cylindrical epithelium. The body of the uterus contains the utricular glands, which rest directly upon the muscle, and which largely are cast off at the menstrual period. The tubes also are lined with ciliated epithelium, but have no glands; the walls are in folds, affording resting-places for the gonococci.

The external os, the internal os and the isthmus of the tube are constrictions which serve as natural barriers to the progress of infections. The vestibule is the seat of numerous mucous follicles, and just without the urethra are two rather large (paraurethral) follicles, all of which frequently are involved in gonorrhea.

Most observers agree that the seats of infection, in the order of their frequency are: urethra, cervical canal, Bartholin's glands, uterus, tubes, vulva, vagina, bladder, rectum. Vulvovaginitis is rare in the adult woman, but is the usual form of the infection in children. In acute gonorrhea in women, I rarely find the urethra free from infection, and usually it is associated with cervicitis. Contrariwise, Dannreuther's statistics, based on a large private and dispensary practice, show that in 65 percent of cases the cervix uteri is the seat of primary infection. However, the consensus of opinion is decidedly against this statement.

Apropos of the varying virulency of gonorrheal infection, Doederlein makes the following statement:

"Clinical experience and bacteriological investigations have given rise to the following important conclusions respecting the etiology and pathology of gonorrhea:

"A wide, patulous external urethral orifice in the male favors the entrance of the female secretion; so that one with such a urethral orifice may acquire gonorrhea, while another—later-comer—may not acquire it.

"Likewise in the female, the anatomical conformation of the genitalia has an influence on the kind of gonorrheal infection: with a narrow vaginal outlet, virginal, the urethra is likely to become infected; and in a non-virginal vagina the infecting agent more easily comes in contact with the upper part of the vagina and cervix. Infection with acute gonorrheal pus causes in women a much more acute, stormy attack of ascending gonorrhea (Wertheim) than an infection with chronic, latent gonorrhea.

"In labor, the gonococci in the lochia become more virulent, which favors an ascending infection.

"In marriage, the two participants may become immune to each-other's gonococci, so that it is not possible to have a further exacerbation of gonorrhea between these two. When a third person trespasses, however, it is possible that he may have an attack of acute gonorrhea, while neither the man nor woman have any manifest gonorrhea. (Wertheim.) Not every connection with a gonorrheic woman is followed by an infection, because in chronic gonorrhea the genital secretions can at times be free of gonococci. Marked irritation of the genitals, as from menstrual or puerperal secretions, bring the gonococcus to the surface, and so raise the infectiousness of the woman. Under these conditions, the symptomless gonorrhea of man can experience a recrudescence, and the man can, through his wife, be infected with a virulent gonorrhea.

"In man, latent, i. e. symptomless yet infectious, gonorrhea can—through excesses, especially those venereal (marriage)—experience exacerbations and appear after a pause of perhaps ten or twenty years."

Hussey notes, in regard to the gonococcus in the puerperium, that "this infective agent may lie dormant for an indefinite period of time in the cervix, and that it may under favorable circumstances acquire new virulence and light up fresh inflammations. Clinically, gonococcus infections differ from the septic ones in the mildness of the systemic symptoms, the tendency to appear during labor or in the second or third week of the puerperium, and

in the chronic course which they run. Pus-tube formation is more frequent and pelvic cellulitis less so, and the patient rarely presents the appearance of profound illness characteristic of other forms of sepsis. Moreover, the prognosis is usually good."

#### Diagnosis

The diagnosis of gonorrhea in a female is made by the history, by the clinical course, by the appearance of the genital organs, and, lastly, by the microscopic examination of the discharge. In all acute cases, the burden of proof rests on the microscope and the specimens of the discharge obtained from the patient's urethra, vagina, and cervical canal. Such specimen-discharge is best obtained from the urethral and cervical canals by means of a little sterile cotton wrapped on a fine applicator. In typical cases, a single stain will suffice, while in doubtful ones or mixed infections the Gram method should always be resorted to.

It is important that the patient about to be examined for gonorrhea should not cleanse the vulva or vagina with douches and should not have passed her urine for several hours, else it may be difficult to obtain the secretion for examination.

In medicolegal cases, cultural tests should invariably be made. The gonococcus grows on blood-serum or hydrocele agar at body-temperature.

The diagnosis of latent and chronic gonorrhea is beset with difficulties and only in a minor percentage of cases can the gonococcus be found. This explains why so many women with latent gonorrhea infect their friends, and, yet, have a clean "bill of lading" from their family physician.

The diagnostic points of chronic gonorrhea are: (1) disease of Bartholin's glands; (2) a reddened urethral meatus, especially the orifice of Skene's glands; (3) erosion of the cervix. Secretions from the several locations named should be obtained, and such examinations be made repeatedly.

Instillations of silver-nitrate solution (2- to 5-percent) into the urethra and cervical canal should be used as a provocative test, the same as in the male. When the secretion is but slight, the urethra should be massaged through the vagina until a small drop of pus appears at the meatus.

The glands of Bartholin should be palpated, and the presence of a purplish-red areola around the orifice noted (the maculæ gonorrhoeæ of Säger). An examination at the menstrual period is more conclusive than at

other periods, because at that time the congestion of the uterine organs increases the discharge and in all probability more gonococci are being thrown off.

Bandler asks the question, "Are we in a position clinically to diagnose chronic gonorrhea when a few pus-cells and no gonococci are found?" He believes that certain cervical alterations are of importance, especially when chronic urethritis is not present, when maculae gonorrhoeae or other external evidences are entirely absent, and when tubal and peritoneal changes are not marked. He has accepted as an axiom that "cervical erosions plus a pathologic cervicouterine discharge in nulliparae is presumptive evidence of cervicouterine gonorrhea." I would supplement this by adding, When no malposition is present.

We have made important progress in diagnosis in recent years and can now call to our assistance the complement-fixation test. Schwartz and McNeil, of New York City, have done most thorough and exhaustive work with this test. They have found that a negative reaction will probably be obtained if the disease is limited to the urethra, Skene's glands and Bartholin's glands. The cervix or the uterine adnexa must be involved, though, to make the findings of this test reliable. The following statistics published by Schwartz and McNeil will give an idea of the field of usefulness of the complement-fixation test in gynecology:

#### STATISTICS ANENT THE COMPLEMENT-FIXATION TEST

CLINICAL DIAGNOSIS	POSITIVE	NEGATIVE
Urethritis and endocervicitis:		
(a) Gonococci present.....	9	0
(b) Gonococci not found.....	8	3
Gonorrhea clinically cured.....	1	4
Chronic gonorrhea, gonococci not found.....	2	0
Gonorrheal vulvovaginitis; girls under 5 years, gonococci present...	0	10
Salpingo-oophoritis.....	9	3
Pyelitis clinically considered gonorrheal.....	2	0
Vulvovaginal abscess; gonorrheal...	2	0
Pelvic peritonitis.....	3	1
Pregnancy, gonococci present.....	1	0
Pregnancy, gonococci not found....	14	40
Miscellaneous cases from the clinic; lacerations, displacements, etc.	13	50
Pyosalpinx.....	3	4
Pelvic abscess.....	0	2

#### The Treatment

It will simplify the presentation of this subject to consider treatment under two headings, namely: (1) gonorrhea confined to the parts below the os uteri internum, (2)

gonorrhea involving the body of the uterus and its adnexa.

It is important to remember that acute infection is limited to the lower part of the urogenital tract in the great majority of cases, and that, if the patient can be brought under proper care and treatment at once, involvement of the upper genital organs will not occur. Our treatment then should aim at the prevention of ascending infection and the elimination of the gonococci. Menstruation appearing within the first two weeks delays recovery, and the earlier it occurs after infection, the longer the period required to effect a cure.

The value of gonococcic bacterin in the female is in direct ratio to the degree of the extension of the disease and the depth of penetration of the cocci. There is some question about the value of the bacterin in vulvovaginitis and urethritis, although Hamilton, of the Vanderbilt Clinic, found it of great service in gonorrhea of children.

My custom is, to give the bacterin in every case of cervical involvement. The object is a two-fold one, to serve as a curative for the territory involved, and as a prophylactic against extension upward to the tubes and ovaries.

The dosage in the acute stage is 25 million; in subacute, 50 to 100 million; in chronic cases, upward to 1000 million. The injection is repeated every two to seven days, depending upon the magnitude of the dose and the particular stage of the disease.

I am strongly convinced that the systematic use of bacterin in the early stage of gonorrhea will materially decrease the percentage of serious complications.

In the acute stage, rest, restricted diet and cleanliness should be observed. The bowels should be kept free with one of the saline laxatives. It is at this period that frequent copious irrigations with hot water are especially indicated. The water is used at a temperature of 115° to 120° F., 4 quarts, at least, being used at each treatment, this to be repeated every three or four hours. The water may be plain or, as I prefer, it may be the normal saline or a 2-percent boric-acid solution. Fluids of this character remove the pus and cocci without injuring the epithelial covering, and thus, consequently, limit the infection to superficial areas.

In addition, twice daily after the cleansing douche, with the legs widely separated, the surface of the labia majora and minora, of the vestibule orifice of the urethra and the exposed portion of the vagina should be

painted with either a 10-percent protargol or a 50-percent argyrol-glycerin solution.

With the passing of the acute period, more active treatment is indicated. The patient should use, morning and evening, a 2-quart irrigation with one of the following fluids:

- (1) Potassium permanganate, 1 : 4000,
- (2) Condy's<sup>1</sup> fluid, 2 drams to the quart,
- (3) Tincture of iodine, 1-2 to 1 dram to the quart,
- (4) Picric acid, 1 dram to the quart.

My own preference is for either the picric-acid or Condy's fluid.

The patient must be reminded that the douche should be taken in the recumbent position, with the pelvis slightly elevated on a douche-pan. The douche-bottle should be at an elevation of 3 or 4 feet, and the water be as hot as can be borne. If the mucous membrane around the introitus is compressed at intervals the vagina will become ballooned and thus the remedy be brought into contact with all the area of the folds. I find it well to precede the medicated douche with one of plain hot water.

If the cervical canal is the seat of infection, topical applications should be made by the physician at intervals of two or three days. After removing all discharge from the vagina and cervix (the cervical canal is not entered), the exposed portions are painted with a 10-percent solution of protargol, after which a cotton-wool tampon is placed against the cervix; this tampon being medicated with a solution of 10 percent of ichthylol in a 25-percent boroglyceride solution. This is to be removed after eight or twelve hours. Dr. Gies is a warm advocate of the picric-acid treatment and medicates the tampon with a 2-percent solution of picric acid dissolved in equal parts of water and glycerin;<sup>2</sup> a second, moistened, tampon is inserted so as slightly to distend the vagina. These are left in place for thirty hours. It is claimed that the glycerin draws the gonococci to the surface and then the acid solution destroys them. The cervical mucus is always stained yellow, showing that the solution has passed into the cervical canal from the tampon. In the acute stage, patients are said to be cured in two to four weeks, if seen

sufficiently early. The picric-acid irrigation should accompany this treatment.

Only in latent or chronic cervical infection, direct local medication is permissible. The cervical mucus is best removed with a small blunt curette. We can use either the uterine syringe to instill the medicine, or apply it with a cotton-wrapped probe. A selection may be made from the following solutions: Silver nitrate, 5 to 25 percent; tincture of iodine; iodized phenol; 2-percent picric-acid solution; 10 to 20 percent solution of zinc chloride. The stronger the preparation, the more sparingly it must be applied.

The tip of the syringe, to the extent of an inch, is wrapped with cotton and introduced up to the inner os and then the solution is injected drop by drop as the instrument is withdrawn. If preferred, the cotton may be left behind, for more pronounced medication.

It should not be overlooked that the patient's resisting power in these chronic cases is lowered to a marked degree. An anemic genital canal can not resist infection and deep penetration of the cocci. Iron, strychnine, and the increased consumption of food, along with all that makes for good hygiene, are indicated.

Acute urethritis is treated in the same general manner as in the male. Capsules of boric acid or of salol, 5 grains, with methylene-blue, 1 grain, should be given after meals for ten days, to be followed by oil of santal in 10-minim doses. If the urine is excessively acid, potassium bicarbonate in suitable doses is indicated. If tenesmus or urgent urination is complained of, atropine should be given in doses of 1-200 to 1-150 of a grain.

The urethra should receive treatment on alternate days, the physician using an injection of protargol or hegonon of 1-2- to 2-percent strength. I find it convenient to use for this purpose an olive-tipped syringe holding 1 ounce. After the urethra has been distended and emptied several times, the remainder of the solution is forced back into the bladder, to be voided later.

At home, the patient uses the same solutions, but in one-half to one-fourth the strength just named. A 1-dram syringe is prescribed for this purpose. The woman is told to use the injection after the following manner: To sit with the hips well forward on the edge of a chair, in a semireclining position, with the thighs separated and the clothing drawn out of the way. A mirror of medium size is placed on the floor, at such a distance and angle as to bring the external genitalia into view. With this assistance, and a little

<sup>1</sup>Condy's fluid, according to the National Dispensatory, is made by mixing 53 parts of potassium permanganate, 333 parts of crystallized aluminum sulphate, and 777 parts of hot water. On cooling, potash alum crystallized out, which is separated from the liquid. The latter, hence, consists of a solution of potassium sulphate and permanganate of aluminum. The U. S. Dispensatory states that "all the available oxygen of the permanganate acid is utilized, whereas only 60 percent of this amount is utilized with the simple alkaline permanganate."

<sup>2</sup>The acid should be first dissolved in the water, then the glycerin added, as when rubbed in glycerin it explodes.

practice, the average patient will have no difficulty in satisfactorily injecting her urethra. The tip of the syringe should remain in close touch with the meatus for a minute and then released, repeating several times, to insure thorough medication.

#### Subacute and Chronic Cases

If the urethritis is of the subacute or chronic type, instillation of silver nitrate, 1-4 to 2 percent, or ichthargan, 1 to 5 percent,

zation with a fine galvanocautery point efficient in dealing with indolent glands and follicles.

The follicles of the vestibule and the ducts of Bartholin's glands are treated precisely as the other glands named. Infection rarely extends to the gland proper. An abscess of a Bartholin's gland demands a free longitudinal incision, curettement, and the application of carbolic acid followed by alcohol, and dressed with iodized-gauze packing.



Fig. 1. Uterine applicator syringe

should be given at the office every two or three days. For this purpose the uterine syringe, as shown in Figure 1, is suitable. The tip is passed down to the bladder orifice, and the instillation made as it is being slowly withdrawn.

In resistant cases, I usually have found dilatation with sounds or the straight Kollman dilator, followed by an injection of 2 to 5 percent protargol, beneficial. Occasionally strong applications of silver nitrate, applied with the aid of an endoscope under illumination, to the urethra, or of trigone of the bladder, will be necessary to heal erosions and ulcers or to destroy a granular patch.

At times, the infection lingers in Skene's glands. These bodies are found on either

When gonorrhea has invaded the parts above the cervix, there is usually an exacerbation of all the symptoms. The menses become too frequent, too profuse, and are accompanied by pain during and before the flow.

#### Acute Endometritis, and Adnexal Disease

The treatment of acute endometritis of the body of the uterus does not differ from that as described for the lower urogenital tract, except that rest in bed is more imperative. In the chronic form, a conservative treatment should be carried out for some time this consisting of hot douches, dehydrating tampons of glycerin with ichthyol or iodine, and applications to the cervical canal, if it is involved, as usually is the case.

In the advent of failure, my preference is for a thorough curettement of the uterine cavity, with the patient under anesthesia, observing the usual surgical precautions. This should be done with a semi-sharp curette; which will express the glandular contents, but will

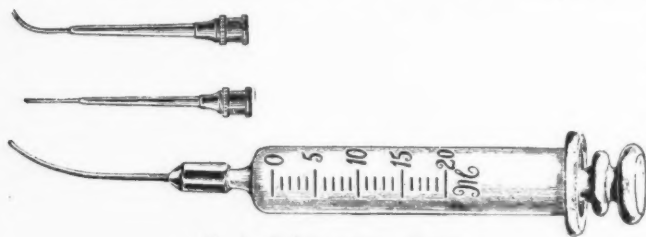


Fig. 2. Follicle syringe and tips

side and just within the urethral orifice, and pressure will produce a small drop of pus. In treating these glands, I use a glass syringe fitted with blunt, gold-pointed needles of various shapes (Figure 2).

If strong solutions of protargol and of argyrol fail, a few drops of a 2- to 12-percent solution of silver nitrate is slowly injected into each duct, or the duct may be slit into the urethra and touched with carbolic acid on a fine, cotton-wrapped applicator. At times, I have found electrolysis with a medium-sized blunt needle, or, also, cauteri-

not destroy the endometrium indiscriminately. After this, the uterine cavity is flushed, painted with tincture of iodine, and packed with iodoform gauze.

Gonorrheal infection of the body of the uterus (myometritis), perimetritis, salpingitis, ovaritis, and localized peritonitis are always serious complications. There is usually an initial chill, increased pulse rate and temperature, and localized pain and tenderness.

The acute stage of adnexal disease should be treated by rest in bed, the application of



an ice-bag over the abdomen, frequent hot douches of a physiological salt solution, catharsis with saline laxatives, and a liquid diet. Operation is not indicated, unless there is a formation of a pelvic or tubal abscess or the appearance of general peritonitis. In the former instances, the abscess is usually opened and drained through the cul-de-sac; in the latter case, an abdominal operation generally is indicated.

As the acute attack subsides, the use of vaginal douches and medicated tampons frequently is helpful. With careful treatment and avoidance of undue exertion, adnexal disease may be cured, or the symptoms be so slight as to cause little inconvenience. In such cases there may be no need of operation. In other cases, however, there is constant pain and discomfort, and occasional acute outbreaks from the diseased tubes and ovaries. Here, operation is indicated when the acute symptoms entirely subside.

Although the vaginal route for these operations is employed by some surgeons, the majority at present prefer the abdominal operation. The usual rule is, to make the operation as conservative as possible, i. e., to remove such portions of the tubes and

ovaries as are actually diseased, but to leave as much of the organs as possible. Especially with younger women, it is desirable to leave some ovarian tissue. The radical operation, with removal of all the adnexa and the uterus, is indicated only when these structures show marked evidence of disease.

It is needless to say that these questions should be decided by a competent gynecologist and abdominal surgeon.

#### Conclusions

The earlier treatment is instituted, the more prompt and certain the result and the less danger there will be of ascending infection.

The overzealous treatment of gonorrhea in the acute stage should be discouraged and we should err, if either way, on the side of masterful inactivity.

The infection lingers longest in the tubes, cervix, Skene's and Bartholin's glands, and repeated examinations should be made before a patient is pronounced cured.

In the pelvic complications, time, douches, and tampons will bring about resolution in the majority of cases.

## Surgical and Medical Experiences in Asiatic Turkey

### *Cases From a Missionary Doctor's Note-Book*

By D. M. B. THOM, M. D., Mardin, Turkey in Asia

#### Urethral Stricture in a Male

SOMETIME in last November I received an urgent call to attend a sick Moslem. I found a man of about 35 years, married, but without children. He was above the average in physical build, in flesh and form, but had spent his short life in riotous living and all kinds of dissipation. The man was suffering intensely, as evidenced by the expression of his face, the perspiration standing out as beads on his forehead.

I learned that he had been unable to pass any urine in the last twenty-four hours, except only in dribbles. This was not the first time he had been in this condition, for once before I had relieved him of this same difficulty, by dilating the urethra; and I had warned him to keep aloof from everything that might cause irritation. But he had again

fallen. Now for twelve hours he had been trying to pass some kind of instrument himself but had only succeeded in tearing the walls of the urethra and producing pockets in its side. Hence, upon attempting to pass a catheter, I failed to get it through.

I persuaded his people to bring him to the hospital and there I worked over him for two hours or more, but still without successfully opening the urethra, although he was able to pass a small stream, but not to the extent of emptying his bladder. Extravasation of urine had already occurred around the pubic region and into the scrotum, an opening having been made on the right side of the penis, at its union with the pubic region under the skin.

The patient was put to bed and when I again saw him the next morning I found that

the extravasation had greatly increased. I recommended external perineal urethrotomy, but as he did not comprehend the gravity of his condition he thought it was not necessary, there being a larger flow of urine than there had been. However, I could already detect the signs of inflammation, with a sure prospect of gangrene. I begged of him to allow me to have my way, but he declined.

It was only a matter of two or three days before gangrene and sloughing set in and eventually this took away more than two-thirds of the entire scrotum, leaving both the testicles exposed.

The question now was what would the next step be—perform castration, or, in time, resort to plastic surgery, to make good what had been lost. But neither expedient proved necessary, for, after he remained in the hospital for three weeks or so, the man went home practically well. He received the most careful attention in every way from first to last, and, with nature's assistance there simply was formed a new scrotum. And, so today, he is rejoicing in as useful an organ as ever the original one was.

After his returning home, my surgical dresser saw this patient twice a day for a month or more, leaving him only when the healing was complete. This patient was from one of our wealthiest houses, and had I bargained with him at the time I could have got 50 pounds out of him; but now that he is well, we may have to sue him for our bill with a question whether we get anything.

The interesting lesson of all this is the part nature plays, in repairing the loss sustained, without any further surgical aid. Conservative surgery sometimes is a grand thing, as is proved in this case.

#### Tetanus

We had three cases of tetanus in one year, two fatal and one recovery, the history of which may be of some interest.

Case 1.—Male Christian. The day before the last Turkish "Fourth of July" a young man was brought to the hospital "on" the Warden Hospital "van"—that is to say, a donkey—tied up and wrapped up to keep him from falling to pieces. He was a sight to behold.

It was learned that as the man was passing a friend's shop while on his way home from the market, he stopped in and found the owner busy rubbing up something in a mortar. To be social, he asked his friend to let him take a turn at the pestle. But no sooner had he begun rubbing, than a tremendous explosion took place—the operator's hand

that held the pestle was blown to shreds, the other hand badly torn, his face blackened, both eyes destroyed, hair singed, his whole chest scorched. And all this for trying to accommodate a friend in the preparation of material for fire-crackers!

There was no possible help for the hand—other than to amputate; which I did at once. Then I sewed up the other hand, washed out his eyes, cleaned up his face as best I could, and then, after the other injuries needing attention were attended to, I put the man to bed.

The patient was a young man about 22 or 23 years of age, of large, fine physical frame, and a jolly good-natured fellow; and it transpired that he was engaged to be married. Even in this terrible calamity that had come to him, he was jesting with his prospective mother-in-law and speaking nonchalantly about his future as a blind, helpless creature for the rest of his life.

For ten days he got along beautifully, his wounds healing as nicely as one could wish. But the eleventh day symptoms of muscular tension about the jaws developed, gradually extending over the whole body, and after six days of great suffering he passed away.

Case 2.—Female, Christian, age 17, married; one child. For a year or two she had suffered from glandular enlargement in the left axilla to an abnormal extent. I had operated on the glands half a dozen times; but they would reappear like mushrooms; and again would have to be scraped out. It was five or six days after one of these operations that she began to show signs of the dreaded tetanus. She was an out-patient, but I had her brought to the hospital, and everything was done for her that could be done; for all that, she, too, died after eight or ten days. Now, what was there in her case that produced the disease? Where did she contract the bacillus?

Case 3.—Male, Moslem, carpenter by trade, age about 40, strong, well-built. He was an out-patient and would not come to the hospital. I saw him but twice. (Maybe that was what saved him!)

In his case there was no wound, not one visible cause for this attack of lockjaw—and, yet, the muscular contractions started. But strange to relate, even though the spasms were marked in jaw, neck, and back, and he swallowed only with the greatest difficulty, this man recovered. Why?

#### A Unique Case of Ascites

My first record of this patient is August 24, 1911, when I was called to see him. I found

a young man, aged 28, who had been taken ill in June and had gone to Orfa for treatment and while there had been tapped twice. After his return to Mardin he had been in a bad way. His abdomen was greatly distended, he was badly emaciated, his urine scanty, bowels constipated, appetite small, sleep none, and he felt great distress. To relieve this I proceeded to tap him and drew off fully four gallons of ascitic fluid. I was again called after five or six days, and again I tapped him, the same amount of fluid coming away. And so it was kept up through the fall and winter, he being tapped on an average of twice a week.

In the spring the man again went to Orfa. There, laparotomy was performed. After he returned to Mardin, his father armed himself with a trocar and became his tapper, the operation now being performed every two or three days. Getting tired of the continuous boring of his abdomen, and hearing that in Beirut they opened up a person, taking out all his organs, laying them on one side, selecting the diseased one, removing that, putting back the rest, sewing the patient up, making him new again, he started for that city, taking in all the doctors along the way. Reaching Beirut, they went in search of the noted surgeon who, they had been told, did all that wonderful work, but failed to find him. So the party went on to Jerusalem hoping that a visit to the tomb of Our Lord might heal the man's sickness.

He is again home, keeping up the puncturing every other day or so. It is safe to say that by this time he has been tapped fully 175 times and fluid drawn off to the amount of 2887 pounds, and, yet, today this man is in better flesh, has more strength, eats better, sleeps better, and in every way feels better than he did one year ago. He goes and comes as any healthy person does.

Now, what is to be done for this man, more than has been done? There is but little in the *materia medica* that has not been

given him by myself and others. How, now, would it do to fix a silver cannula in the wall of his abdomen so arranged as to permit drawing off fluid whenever needed without having to bore through the wall every time? What say you?

[Since Dr. Thom does not tell us the *cause* of the ascites it is pretty hard to make any suggestions for treatment. If the case is renal or cardiac in origin it is safe to say that the doctor has done everything that can be done; if it is hepatic, there is a possibility that the establishment of collateral circulation by attaching the parietal to the hepatic peritoneum might give some relief. It is not an easy operation.]

Considering the young man's age and the history, is there not a possibility that he is suffering from tuberculous peritonitis? Should that be the case the simple operation of opening the abdomen in the median line, with or without subsequent drainage, is very effective, especially in the serous cases. Rorsch collected reports of 358 cases showing 70 percent of immediate cures and 14.8 percent of cures lasting more than two years. Others have secured even better results. We refer Dr. Thom's suggestion of the retained cannula to our surgical readers. What do they say?

The story of the cases of tetanus again emphasizes the importance of using tetanus antitoxin in every patient suffering from a contused, incised or ragged wound, as a *prophylactic measure*. There is little doubt that when this is employed *the disease can be prevented in practically every instance*. It may seem expensive—but it pays in lives thereby saved. After tetanus has developed the antitoxin is of far less value.

This is fine work! What splendid opportunities for doing good open up to our missionary physicians, and how nobly they are meeting them. We shall all of us profit by Dr. Thom's report. Doctor, give us more. —ED.]



# Impacted Renal Calculi

## *How to Obviate the Necessity for Operation*

By F. HOEFFER McMECHAN, A. M., M. D. Cincinnati, Ohio

*EDITORIAL NOTE.—In this article Dr. McMechan tells the story of an interesting case, and shows how through the use of hyoscine, morphine and cactoid, combined with regional analgesia, he was able to make surgical intervention unnecessary.*

SOME years ago THE AMERICAN JOURNAL OF CLINICAL MEDICINE printed my brief summary of a case-report regarding the comparative value of the combination of hyoscine, morphine and cactoid as a pain reliever in renal colic. The patient, a man 45 years of age, had been passing calculi at frequent intervals ever since his nineteenth year. This case-report was extensively reprinted in a number of medical journals throughout the country, and this fact is offered in extenuation for reviving the subject, besides adding certain additional details of treatment which serve as an illuminating experience in the management of impacted renal calculi.

Previous to treating the patient in question myself, I had heard, through mutual friends, of his troubles with renal calculi, but was inclined to discount them as rather exaggerated. However, when my first effort to relieve one of his attacks of renal colic required the hypodermic administration, in divided dosage, of 1 grain of morphine and of 1-50 of a grain of atropine before any effect was secured, I was more prone to accept the man's own story of his trouble; the details of which I have since had verified by a number of physicians who had attended him.

Previous to the use of hyoscine, morphine and cactoid during the attacks of colic and periods of impaction the patient not only required heroic doses of morphine, but he suffered all the disagreeable after-effects of the drug's narcotism. The hyoscine, morphine and cactoid employed by me proved such a wonderful and gratifying substitute that the patient, when he could not secure my services, would demand the use of this combination from other physicians called, and was rather bitter in his criticism of their lack of progressiveness if they did not have the preparation or were averse to using it. In this way he was directly responsible for several practitioners adding the hyoscine, morphine and cactoid tablets to their hypodermic armamentarium.

The patient can recall a number of instances in which the impaction of the calculi in the ureter extended beyond periods of six days; shorter periods of impaction being considered negligible.

### The First Case of Impacted Stone

In the first instance of serious impaction, after nine days had elapsed, the patient was prepared for operation by Dr. Lyle, but, after consultation with Dr. Oliver, he was removed to Christ Hospital, where the stone passed into the bladder shortly after his arrival. At that time the question of removing his left kidney in which the calculi originated was being considered. However, upon the suggestion of Dr. Oliver, a very strict dietetic regimen was instituted, and in about ten months the formation of calculi was diminished considerably.

On a subsequent occasion a calculus became impacted for six days, and then, after it had finally passed into the bladder, it became impacted in the urethra, and it required some skill on the part of Dr. Orr to remove it. Later Dr. Walton performed a similar service for the patient. The stones thus removed were of a phosphatic nature, irregular in shape, and of very considerable size.

I have had the patient under my personal observation for about ten years now, and during that time have given him innumerable hypodermics, with increasing disgust with their inefficacy as well as with the bad after-effects; when, at last, the hyoscine, morphine and cactoid combination offered an at least partial solution of the medical problem involved, its principal advantages being that it served to decrease the necessary dosage of the morphine, reduced the narcotic after-effects to a minimum, while seemingly exercising a more potent effect in relaxing the spasm of the ureter.

However, some years ago, shortly after the original case-report, during a prolonged siege of forming and voiding calculi (due to the patient's abrogation of his dietetic regimen), a stone became impacted in the

right ureter and remained there for a period of thirteen days. Previously most of the calculi had passed from the left kidney and the ureter on that side had become sufficiently dilated to allow the passage of stones much more readily than the right one.

#### Operation is Refused

Despite all my requests for consultation and operative interference, the patient decided to take his chances on the stone coming through. During its period of impaction the patient had been receiving two hypodermics of the full-strength hyoscine, morphine and cactoid tablets, within the space of twenty-four hours. On the evening of the thirteenth day my own patience and the confidence of the patient's wife were exhausted. But the patient remained obdurate in his intention to avoid any operation, arguing that no sooner had a surgeon removed the offending concretions and stitched up the ureter, than another would come through, and so his life would be doubly imperiled. His argument was incontrovertible, of course.

In the emergency, the presence of a tube of novocaine and adrenaline tablets in my hypodermic case provoked an association of ideas. I had been reading with interest the results of Quénu, of Paris, in reducing fractures and dislocations under the influence of local analgesia, and it also occurred to me that Dr. C. A. L. Reed had recently read a paper, before the Academy of Medicine, on "The Painful Uterus," in which he had described how during any pathological process each of the painful abdominal viscera had a corresponding pain-spot along the spinal column.

Upon questioning the patient regarding any painful area along his spinal column, he immediately and without hesitation indicated with his thumb a spot about an inch from the median line, to the right of and at the level of the second lumbar vertebra; and, by applying digital pressure, this was found to be a definite, circumscribed and fixed point of excessive tenderness.

Taking one novocaine and adrenaline tablet and one full-strength tablet of the hyoscine, morphine and cactoid combination, I made a solution in water, and, using a 2-inch needle, injected perineurally into the depths of this pain-spot. The hyoscine, morphine and cactoid now exerted a much more rapid effect than at any time previously noted, and some hours later the impacted calculus passed into the bladder; being voided with the morning urine. The patient established

its passage into the bladder by the sudden relaxation of tension in the right seminal cord and testicle—a sign which he had come to rely upon through experience.

This tension of the cord and testicle is a diagnostic point of considerable significance in differentiating renal-stone impaction or colic from other abdominal pains radiating from the lumbar region. This patient, furthermore, was able to locate the point of impaction in one of the three kinks of the ureter by the point to which the radiating lumbar pains came anteriorly on the abdomen, and by the increased tension of the seminal cord and testicle as the calculi descended nearer to the bladder.

The success of this first regional analgesic injection prompted its further use. All subsequent injections of the hyoscine, morphine and cactoid compound were combined with novocaine and adrenaline, and were given perineurally; and the point of injection, as indicated each time by the patient's thumb, did not vary outside the circumference of a silver quarter. On one occasion, at my office, such a deep injection for an attack of renal colic secured the passage of the stone into the bladder within ten minutes. The event was dramatically announced by the patient's grunt of pain as the calculus passed through the orifice of the ureter, and by his springing from his chair with a smile and a shout, "It's through!" and the immediate voidance of four ounces of crystal-clear urine, the secretion of which had probably been due to the administration of the adrenaline.

#### Advantages of the Compound

It was found on various occasions that the combination of the analgesic tablet with the hyoscine, morphine and cactoid permitted, not only the use of the half-strength tablets, but frequently of as little as one fourth of the combination, for getting prompt effect. Also both the narcotic and analgesic effects were speedier, and the passage of the calculi occurred far more promptly.

The manner in which this special combination acts would seem to be as follows: The hyoscine, morphine and cactoid has its usual narcotic effect and produces some relaxation; the novocaine, when perineurally injected, relieves the spasm of the muscular coats of the ureter, while the adrenaline promotes sufficient urinary secretion to force the calculi into the bladder by direct pressure. Furthermore, the pain-spot, as indicated so invariably by the patient, is in proper anatomical relation to the trouble, being located



directly over the point of emergence of the spinal as well as the sympathetic nerve supply of the ureter.

Owing to a protracted personal disability, I have not been in position since then to utilize this combination in other cases of impacted calculi; but the consistent manner in which it negotiated the voiding of calculi in this one particular patient in more than thirty consecutive instances would seem to warrant its trial by other clinicians.

Whereas my patient presents a record of hundreds of impactions lasting from a few hours to fourteen days, since the time the perineural injections have been instituted not one impaction has lasted more than six hours, irrespective of the size of the stone; and, as previously stated, one calculus passed into

the bladder within ten minutes after the injection.

Although over thirty perineural injections have been given this patient in an area within the circumference of a silver quarter, and although these injections extended over a period of several months, there has appeared neither any local reaction at the site of injections nor any subsequent pathologic lesion of the underlying tissues.

Further clinical tests of this method of combating the impaction of kidney-stone would seem to be warranted as a last resort before proceeding to catheterization of the ureter or operative interference, particularly as it is a method that can be employed by the general practitioner under any circumstances and is, apparently, devoid of any danger.

## Infantile Intestinal Infections

### *Modern Principles of Treating Them*

By THOMAS G. ATKINSON, M. D., L. R. C. P. (Lond.), Chicago, Illinois

Clinical Professor of Pediatrics, Chicago College of Medicine and Surgery

IN THE light of the recent research-work done in pediatrics, chiefly by the Italian school, it is quite evident that we must greatly modify, if not altogether revise, our views upon infantile intestinal infection. These investigations show, beyond question, that the milk can no longer be regarded as the prime factor in the etiology, but that we must look to the physiological peculiarities of the intestinal tract itself, and especially to the peculiar character of the intestinal flora, to explain the disease.

Experiment and observation have demonstrated that the trouble comes about by the interplay of two characteristic conditions in infantile physiology and bacteriology; namely: (a) The inadequacy of the digestive function. By which is meant, not its insufficiency for normal demands, but its incapacity for adjusting itself to extraordinary requirements. (b) The consequent readiness with which the intestinal flora multiply and become malignant under digestive disturbances.

#### **Food Changes Which Favor Bacterial Activity**

Any marked change—and often even a slight change—in the quality or quantity of the food quickly brings about such a disturbance in the character and distribution and behavior of the intestinal bacteria that

they cease to be normal, and many of them become pathogenic. Cooley says: "Species which before were benign become highly malignant; normal types, while retaining their physiologic character, lose their power of resisting invasion by pathogenic types; or they disappear and are replaced by pathogenic germs." Thus, the net aspect of the entire bacterial field is changed from a benign, and even useful, activity, to a malignant infectious virulence.

Therefore, the transference of a child from human to cow's milk; a change in the quality of artificial feeding, such as feeding from a different cow; and even a change in the amount of the food, a simple matter of over-feeding; any one of these violations of the digestive function is sufficient to induce such a disturbance in the intestinal flora as to result in a severe intestinal infection.

Of course, I would not be understood as belittling the importance of the germ content of the milk itself, or as advocating a return to the old conditions of filth and sepsis which prevailed in the dairy and in the milk-can not more than fifteen or twenty years ago.

Certainly no one has any intention of reneging on the stand that was taken and the work that was done in denouncing and reforming these disgraceful conditions. That

was all exceedingly necessary and valuable work in the clearing up of the situation. But it has not solved the problem; and we find ourselves now confronted with another aspect of the question.

Present-day investigation shows that, within reasonable limits of cleanliness, it is not so much a question of the bacterial content of the milk, as it is of feeding as nearly as possible to normal, and avoiding violent changes in the quantity and the quality of the diet.

Without pretending to enter here upon any lengthy or detailed discussion of the vexed question of milk sterilization, it might be remarked, in passing, that there is at least the danger in all the current methods of artificial sterilization that they may defeat their own end; for, if the processes be not accurately carried out or if they be not uniform from day to day, they are quite likely so to vary the physical qualities of the milk as to induce violent disturbances of digestion, and in that manner bring about the very troubles that they are designed to forestall.

#### Principles of Prophylaxis

The keynote of modern prophylaxis in infantile intestinal infection, therefore, is to maintain normal feeding, as nearly as possible, both as to quality and as to quantity; that is, to adjust artificial feeding as nearly as may be to the natural feeding conditions pertaining to the age and weight of the child, and to avoid all violent changes of quantity and quality in the food.

To this end, the American practice of feeding by the percentage-method is, I think, much more favorably adapted than the German habit of feeding sheerly according to calorie calculations. The ideal way, however, is, to combine the two methods; or, rather, to proceed according to each method, and then to adjust the one to the other. It is a comparatively simple matter to first calculate the percentage-basis which is proper to the child's age; next to estimate the calorie requirements of the child's weight; and then to make up a correct calorie mixture according to the percentage-table.

But what, in my judgment, is still more important, because it is so little recognized and practiced, is to insure uniformity in the quality and character of the milk. This can be effectually accomplished only by insuring uniformity in the source of supply.

And here is one of the most fruitful causes of trouble in dairy milk as ordinarily pur-

veyed by city dealers. They "shop" for their milk, buying it here, there, and everywhere; or they receive varying proportions from various dairies; or they purchase from one dairy one month and from another the next; and the consequence, in either case, is, that the physical character and quality of the milk differs from time to time to a very marked degree. For a long time I have been convinced that this feature of the milk supply constitutes a very real and common danger; and the results of recent investigations in intestinal infection give my convictions almost scientific certainty.

There is no doubt that many a case of summer-diarrhea gets its start in the way here indicated. One fine day the milkman leaves at the door a supply of milk, just as sterile as it always is, measuring, perhaps, up to the required standards of richness and caloric value, but altogether different in physical character, because from an entirely different dairy. The child's digestive function, already reduced by the hot weather and other conditions to the minimum capacity for adjustment, rebels against the rather violent change, the intestinal bacteria are deranged, and the mischief is done.

All of which, of course, may happen without any deliberate transgression, even without any carelessness, on the part of the milkman, who doubtless is doing his best according to his lights and according to the municipal requirements laid upon him.

Exactly how this particular phase of the matter is to be regulated I am not at present prepared to suggest. But there ought to be some way, surely. Just now I am arguing the baby's brief rather than the city's. From the baby's standpoint, it is important that the milk be furnished from a herd of cows, instead of from single animals, so that the average quality and character of the product may be fairly uniform. If this is impracticable, the next-best thing is to draw the supply from one cow the care and feeding of which are under constant observation and control.

#### Principles of Treatment

When infection has occurred, the keynote of modern treatment is, to adjust the dietetic balance and to give prime attention to the intestinal tract itself.

Clinically, therefore, treatment resolves itself into the carrying out of four prime principles; namely:

1. To give the gastrointestinal tract physiologic rest.

2. To remove as much as possible of the offending elements.

3. To stimulate the natural defenses and restore the dominance of the normal flora.

4. To assist these defenses with local antiseptics.

#### Physiologic Rest

The first step in the adjustment of the dietetic balance is, to stop food altogether and to clear out of the gastrointestinal tract whatever lenteria may be there. The unfailing rule, therefore, is, to withhold all food for the first twenty-four hours. In breast-fed children, this usually is sufficient; and thereafter feeding may be cautiously resumed. In bottle-babies, however, it is necessary to maintain a certain degree of functional rest throughout the disease, at the same time supporting the child's strength with adequate nourishment.

The rule is, to withhold or to reduce to a minimum those food-elements which cause specific trouble. If the disturbance is chiefly in the upper bowel, where sugar and carbohydrate fermentation is common, these food-stuffs should be cut out of the diet. If in the lower bowel, where albumins are attacked, the decomposable albumins are to be withheld. In these latter cases, whey and buttermilk are an excellent substitute for milk. In all cases, barley-water is ideal.

#### Removing Noxious Material

It is during the first twenty-four hours that we must expect to do all that can be done in the removal of germs and germ-laden material. Sufficient cathartic (calomel, or blue-mass and soda, or phenolphthalein) should be given to produce two or three good evacuations, to be followed by a thorough irrigation of the colon and lower bowel with warm sterile water or some mild, unirritating antiseptic solution. After the tract has once been thoroughly cleaned out, it is not wise to aggravate it again with catharsis during the entire course of the disease.

#### Stimulating Natural Defenses

The assistance of the natural body defenses consists in not-doing rather than in doing. Experience teaches that we are powerless, either by way of passive immunization or by introducing alexins, to increase the infant's body defenses to any appreciable extent. The important thing is, that we shall not do anything to hamper or hinder with any meddling activity. Especially, bearing in mind the important part played

by the intestinal secretions in the battle against the germs, it is the apotheosis of irrationality to check their flow or inhibit their action by the use of opiates or astringents.

About the only positive way in which we can assist the defensive process is by keeping the intestines well distended with fluids, which stimulates, in natural fashion, the flow of the secretions. This is to be done, not by enemata, but by hypodermoclysis of normal salt solution. The fluid is then absorbed normally and secreted into the intestine.

#### Reinforcing Natural Defenses

While we cannot positively assist in the natural defenses of the body, we can do a great deal to aid them by subtracting from the task which they have to perform; i. e., by inhibiting many of the pathogenic bacteria in the bowel before they enter the mucosa, thus preventing them from going into the battle at all, and lessening the number and strength of the enemy with which the body defenses have to contend.

Indeed, this is really the only truly positive phase in all our treatment of these infections. This is where intestinal antiseptics and intestinal antiseptics have their most logical, as well as their most effective, field.

It is not the purpose or function of this paper to deal with the details of treatment, but only to set forth the principles of treatment as made clear by the most recent observations of the disease. Therefore, I shall not enter into a discussion of the various ways and means to be employed in carrying out the disinfection of the gastrointestinal tract, leaving that for someone else to do, but shall content myself with emphasizing the truth that, in the light of our modern knowledge on the subject, gastrointestinal antiseptics assumes a role in the treatment of infantile intestinal infections second only to the dietetic feature, if not equal with it.

This antiseptic measure must be both general and local—the internal administration of antiseptic remedies, such as the sulphocarbolates, galactenzyme, and so on, and the local instillation of carefully adjusted antiseptic solutions. It is advisable, in the acute stages of the disease, not to use the high colonic method of injection in making these local antiseptic applications, for fear of traumatizing the already congested and sensitive bowel, but to confine local measures to the lower bowel, depending upon internally administered antiseptics to take care of the upper intestinal tract.

# The Native Korean Doctor

## *His Method of Treating Disease*

By MARY S. STEWART, M. D., Seoul, Korea

TO appreciate fully the science of native Korean medicine, the doctor and his practice, you must become acquainted with the man. That you may see him as I saw him the first time, I'll relate an incident that happened at my clinic.

A large, dignified old Korean gentleman stepped daintily over the feet of the women and children awaiting their turn for treatment. His dress was that of wealth and of refined life: black velvet sandals, white cotton stockings padded with cotton to make them warm, large baggy trousers of white silk, also lined and padded with cotton, tied tightly about his ankles with a pale-blue ribbon, a lavender-colored brocaded silk vest with long sleeves, a long, pale-blue silk coat fastened over the breast with a daintily tied narrow ribbon of silk of the same color, his head covered with a small black hat made of horsehair and bamboo, while through this you could see his top-knot of hair, for he wore his hair done high up under his little hat.

The man's hair and mustache and tiny chin-beard were white, and as he sat down upon the patient's chair and looked at me with his soft black eyes and kindly face I immediately fell in love with him. He said he had been sick three years and could I cure him. He would not give me much of a history, too many women listening. Making a safe diagnosis, we gave him some mercurial ointment for his sores, a 16-ounce bottle of a solution of sodium iodide, and charged him two yen. When the man had gone my helper said, "Doctor, you should have charged him more. He is a rich old Korean doctor." Since then he has sent to me many members of his household and many hundred patients. Inquiring one day how the old doctor had "become," I was told he was *tā-nū-so* (all well).

My most difficult and trying work is undoing what he and others like him have done. However, there is really a crude or imaginary science of their medicine. I was shown a large number of medical books—four and five hundred years old. These books have crude outlines of plants, minerals, bones, and other materials used as medicine. However, I

have been told that the science as practiced today is just the same as it was 5000 years ago, with the exception of the use of the "chim."

### The Wonder-Working Chim

This chim is his all-around surgical instrument. It is long or short, slender or thick, according to the location where it is to be used. If a man has eaten too much, so that it is difficult for him to breathe, put the chim into the second joint of the thumb, it gives instant relief. That it may do better work, it is first run through the top-knot of hair. Yesterday I pulled a tooth for a child and found protruding from the end of the root a piece of a chim. I asked about it and found it had been put in to cure the toothache and it broke off.

A boy seven years old was brought to me on the back of his mother. At first she only gave the history of a sore leg. We put him upon the table. I inspected a fracture, gave him some chloroform and asked more questions, and found that ten days previous he was run into by a man with a bicycle, and his leg swelled badly, and so they took him to a Korean doctor. He put his chim into the sorest place. I found a fractured tibia and an awful infection from the chim. The leg terribly swollen from toe to hip. The leg was saved. Forty-two days he was brought to us on the back of his mother.

One of my helpers was sent to me with a swollen knee. She had had the chim put into it to the bone seven times, but the swelling kept getting more painful. Later I took a half pint of pus from it, the result of the chim.

I was summoned very early one morning to go "born" a baby. The mother had been trying to born it for seven days, and for three days the *o jum* (urine) had not come. All this I was told before I started for the home. Half of the trouble they never told. They had called a Korean doctor. He had put his chim down through the abdomen to bring the urine, but it did not come. The woman became unconscious. The Christian doctor was now expected to perform some miracle and "put life into her." The chim must have

been a long one, for it had pierced the fetus. Two weeks later this woman came to the dispensary with her paltry offering for my saving her life.

There are other mechanical practices used by the native doctor in healing. The number of times a child has had spasms can be told by the round "shiny" places upon the child's head where there is no hair. A live coal is placed upon the head as a means of restoring "life."

When a woman from some cause or other does not menstruate, she is burned over the pubes. I have had many patients nearly dead from tuberculosis, menstruation had ceased, and the patient had been horribly burned. For pain anywhere along the spine I have seen horrible burns made.

#### Strange Obstetric Practices

We have many cases of prolapsed uterus, where the uterus is entirely outside the body. The method of treatment to persuade the uterus to return is unique. A string is tied around the body of the uterus and to the other end of this string is fastened a wad of cotton saturated with coal-oil and set on fire. When the uterus feels the fire it flies back into place within the body. I have had some of these cases where the poor creatures were most fearfully burned: flesh sloughing, uterus closed and filled with blood.

One woman came to us 250 *li* (84 miles), walking most of the distance, who had been treated in this manner. It was my first case of this kind. The uterus was nine inches in circumference, filled with blood, and discharging blood at every step. Nothing in any medical book or anything I had ever seen could tell me what to do. She went home a month later, with the organ within her body, and though not wholly well she carried away with her a great confidence in the skill of the Christian doctor.

I am called to the homes many a time to remove retained placentas. As the home work is to be another story, I wish to tell of a case of this kind that came to the dispensary.

The patient lived 60 *li* out of the city and came this distance in a Korean chair, four coolies, and a retinue of relatives and friends accompanying her. This is the history. "Forty-one days ago she borned a baby, but the afterwards did not come. We waited, it did not come, so we called a doctor, and he gave her much strong medicine to eat and burned her where the *tah* is, but it did not come, so we called a sorceress. She rang

bells, found a pan, boiled tigers' teeth and claws and gave her the water; still it did not come. We spent much money, *pak won* (\$50 gold). Now, *wee-won* (doctor), we want you to cure her."

It was on Saturday, when we have no clinic. My helpers put the sick woman upon our operating-table, and cleaned her up, while I silently asked for wisdom and power to save the woman. Her temperature was subnormal. We placed bottles of hot water about her, gave her strychnine, nuclein, and hot malted milk, and let her rest half an hour; then we curetted. We left her upon the table till 6 o'clock, when we again flushed the womb. The next day they took her home, paying me 35 sen (\$17.50 in gold) for saving her life. Months later I was called to that woman's village upon a similar case, and my former patient came out a long distance to meet me. It was she who insisted I must come for the other woman.

I have in my detention-room now an insane girl of 20 years. Her flesh was, in plain language, black and blue. Upon inquiring, I learnt that it is a method of treating insanity caused from eating opium. A blind man is hired to beat out the evil spirit.

I asked my old Korean doctor to name me his three best medicines. He replied we have only two great medicine and about five hundred small medicines. His two great medicines are, first, dried and powdered deer's horn that is gathered when the horn is red, and the other is ginseng. Some of his other most powerful drugs or medicines were bear's liver, tiger's bones, copper, and iron rust. I have been told that the native doctor also uses the following of our familiar drug-plants, viz.: pulsatilla (with beautiful red blossoms), aconite, digitalis, arnica, convallaria (grows in great abundance on mountain sides), taraxacum, and gentian (not the variety we use, however, but a white-flowered one). I hope to make quite a complete study of medicinal plants found here.

Among the ointments used, there is one for burns made from charred rice, straw and sesame oil. Cut tobacco or common smoking tobacco boiled in sesame oil to form a paste is used for cuts, bruises, stings, and swellings of many kinds. A poultice made from rice flour and honey and applied hot is much used. A thick paste made of pounded cooked rice, placed between two pieces of linen and kept hot, I found used in a Korean home. I have since used this poultice upon some foreigners having pleurisy and pneumonia, with splendid results.



# The Use of the Obstetric Forceps

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

Professor of Obstetrics in the Medical Department of Loyola University

*EDITORIAL NOTE.—In two preceding issues Dr. Rittenhouse has given us important facts concerning the forceps and its use. This month he carries us still further in its application to various conditions. The series on this instrument will be concluded next month.*

## The High Operation

THE application of a forceps, when the child's head is at or near the superior strait, is a very different affair from its application in the lower part of the pelvis. It requires more skill, more force must be used, a different movement of the blades is required, there is more danger of inflicting injury upon mother or child, and complete anesthesia is required, not only to facilitate the application, but because without anesthesia it would be too painful to be endured.

The indications for the high application are not as frequent as is generally supposed. It is undoubtedly true that high application many times is resorted to when an easier and safer way out of the difficulty might be found. It is not an uncommon thing for the doctor to discover that with growing experience he finds himself resorting to the high operation less frequently. I tell my students that, as they increase in experience, they will depend more upon brain and less upon muscle. Sometimes I put it in this way: The most important thing to learn about the high operation is how to avoid the necessity of it.

## Difficulties of the Occipitoposterior Position

For example, a doctor with limited experience encounters an occipitoposterior position. As so often happens under these circumstances, the first stage of the labor is extremely prolonged. Dilatation makes little progress, and the head fails to descend. Finally the woman becomes exhausted, and the doctor feels that he must do something. Perhaps he decides upon the high forceps without even ascertaining the cause of the delay. The result is disaster. Even if he succeeds in effecting a delivery, it is at the expense of injuries inflicted upon both mother and child, and the doctor goes home with every muscle in his body aching from the hard pulling, and his mind filled with disgust for the practice of obstetrics. How many of us can look back upon such an experience!

Thousands of infants have been sacrificed in just this manner.

In such a case as that here described, the safer and easier method would have been to make an early diagnosis of the position (under anesthesia if necessary), then introduce the hand, lift the head a little above the brim, rotate the occiput to the front, and then either allow nature to complete the delivery or aid with the forceps, as might have seemed indicated. In the second event, the forceps delivery would usually be a simple affair.

Sometimes, when there is inertia of the uterus, the high application may be desirable; although usually it is best first to try to awaken the sluggish uterus by the use of oxytocics, such as quinine, strychnine or ergot. The latter is objected to by many before delivery, but in my own experience its cautious use has never given me cause for regret. The reports on pituitrin seem to indicate that it has value.

## Narrow Superior Strait with Slow Cervical Dilatation

Where a narrow superior strait prevents the descent of the head, the high forceps may be successful; but the difficulty is always increased by the partially dilated cervix being wrapped around the child's head and so increasing its diameter. Nature rarely achieves complete dilatation of the os as long as the head is arrested at the superior strait. So, when the forceps is applied high, a good deal of attention must be given to completing the dilatation before severe traction is made. The cervix wrapped around the head adds to its diameter at least a fourth of an inch—not a trifling matter when the head fits tightly.

A good plan is, to alternate intervals of moderate traction with efforts at dilatation. Pull moderately for several seconds, then relax and with the fingers try to push the cervix above the equator of the head. Once the cervix has slipped over the equator and out of reach, then stronger traction may be

made; and success will crown the operator's efforts unless the disproportion between brim and head is so great as to require craniotomy or cesarean section.

It is well to remember in this connection that a somewhat larger head can be delivered by podalic version than by means of the forceps in a head presentation, because the head is a wedge, of which the chin is the small end—and a wedge always will pass more easily small end first. A forceps may be applied to the aftercoming head, if desired. Another useful point about podalic version is, that the fetal pelvis may be purposely delayed in the mother's pelvic canal molding the soft tissues and crowding them aside, thus making more room for the aftercoming head.

#### Mode of Applying the Forceps

As intimated above, it is far more difficult to apply the blades at the superior strait than in the lower part of the pelvis. In the low operation, the blade slips into place by an easy curving sweep requiring little force. In the high operation, the instrument must be introduced more nearly in line with the axis of the mother's body, and some force is required to crowd aside the soft tissues, enough to allow the blade to slip around the head. Especially difficult is the application of the second blade. The first blade is in the way, and by an assistant must be depressed toward the coccyx, as far as possible while the operator introduces the second.

Once the blades are in place, the next thing is, to lock them, and this sometimes is quite difficult. In case difficulty is experienced, much force should not be exercised; however, *by depressing the handles far toward the coccyx* a little gentle manipulation will cause them to lock without resort to violence. Of course, this depression of the handles is impossible unless the patient lies across the bed, with hips brought to the edge—and the high operation should never be attempted in any other position.

#### Axis Traction

Axis traction is so called because the axis of the superior strait is a line pointing very nearly toward the coccyx, and traction at first, to be most effective, must be in this line, that is, backward, as well as downward. Tarnier devised a forceps with an extra attachable handle, by means of which an assistant could make traction backward while the operator pulled downward.

The fact that such a special instrument is seldom at hand when wanted, led me to de-

vise a substitute; which may not be original with myself, still, I have never seen any reference to it in the literature upon obstetrics. This substitute consists of a fillet or strip of gauze, which I slip through the fenestra of both blades after they have been applied and locked. Then while I pull on the handles an assistant pulls on the fillet in the direction of the coccyx. As soon as the head begins to descend in the pelvis the fillet is removed. Tarnier put a curve in his extra handle, to avoid pressure upon the perineum; but the perineum is so elastic and movable that I have not found the gauze fillet tending to injure it.

#### Use of the Forceps Upon the Aftercoming Head

In all forms of breech and footling presentation, the forceps should be at hand ready for instant use in case the delivery of the aftercoming head is delayed. When an infant is all born except the head, the pressure on the umbilical cord cuts off all placental communication; and, as breathing is not yet established, death will supervene in a very few minutes if the head cannot be promptly delivered. The quick application of the forceps is necessary if the ordinary means of delivery fail.

In probably a majority of these cases delivery can be accomplished by combining the following expedients: a pull of not over fifteen pounds on the body; a pull on the lower jaw with the hooked forefinger, the limit being the strength of the finger; downward pressure above the pubes by an assistant. If these efforts are not successful in one minute, it is usually better to apply the forceps. There is no special difficulty in this, provided the fetal body is turned up over the mother's abdomen, if its face is toward the sacrum, or in the opposite direction, if the face is to the front.

#### Use of the Forceps Upon the Breech

The application of the forceps to the breech I mention only to condemn it. When a breech presentation needs assistance, that assistance can be given in a safer and more rational way. The shape of an infant's pelvis is so ill-adapted to the grasp of the forceps that injury is almost inevitable. If a breech-case makes so little progress that help must be given, it is both easier and safer to reach up and bring down one or both legs.

The use of the forceps for preventing laceration of the perineum will be discussed in a separate article.

(To be Continued.)

# Tea and Its Adulterations

By C. F. LYNCH, M. D., Chicago, Illinois

**EDITORIAL NOTE.**—*This is one of a series of articles upon "Foods and Their Adulterations," which have been appearing in CLINICAL MEDICINE for several months. The physician who desires to be familiar with this subject should read every number.*

**T**EA, next to coffee, is the principal beverage of the average American family and constitutes a prominent item in our import trade, especially from those countries the products of which reach our shores by way of the Golden Gate. Approximately 50 percent of our tea comes from China, 40 percent from Japan, and the remaining 10 percent from Ceylon, India and other points in the East Indies.

The plant which is the source of all the varieties of tea (of which there are legion) is the *camellia thea*, or *thea chinensis*, as it is more commonly known. In the classification of the various teas on the market the different trade-names do not indicate teas derived from different species of the tea-plant, as is commonly believed, but rather have been applied to designate the age and position of the tea-leaves as they are gathered.

Flowery pekoe, or pekoe-tip, tea is the choicest of all teas found in the Celestial kingdom, and, like the choicest Georgian watermelons, it is limited in its consumption almost exclusively to the country of its origin. This tea is prepared from the youngest leaves of the tea-plant, which are practically only budding leaves found at the ends of the shoots from the main stem of the tea-plant.

Orange pekou and pekou teas come next in order as high-grade teas. These also are prepared from very young, tender leaves, and are of most excellent quality. The class of teas next in value, in the opinion of tea-experts, is the souchong. Of this grade there are two varieties—souchong 1st and souchong 2d. The grade of tea after the souchong varieties is the congou tea.

We also have another classification of the teas, based on the gross color appearance, namely, green and black teas. Here also there is a generally prevalent impression that these two classes of tea are derived from different plants. This idea is erroneous, however, as both types are derived from the same plant, but the gross appearance in each case depends on the method of curing or handling of the gathered leaves.

In preparing green teas for the market, the leaves are first steamed and then imme-

diately dried, thus retaining the natural color to a great extent. Black tea is exposed to the sun and undergoes a process of oxidation or fermentation, which results in a loss of the normal chlorophyl and a consequent black color of the finished product. In this process of oxidation and fermentation the tea-leaves give up an appreciable amount of their tannin, and hence the black teas are considerably less astringent than the green varieties.

The various grades of tea all contain a certain percentage of an alkaloid known as theine, which is practically identical with caffeine, the active alkaloid of coffee, and to which the stimulant property of both these beverages is due.

The teas coming from India are as a rule much stronger than those of Chinese and Japanese origin, one part giving an infusion as strong as do three parts of that coming from the tea-fields of China and of Japan.

In the handling of teas in India the processes have been very much modernized as compared with the many manipulations practiced in China and Japan. In India the greater part of the work is now done by machinery, thus materially reducing the sources of contamination incident to handling by human hands. This is especially opportune, as a comparison with the Chinese teas, where all the manipulations are done by hand and in some cases even the feet are used in handling the cheaper varieties, readily shows.

## Adulterations of Tea

In the trade manipulations practiced in the tea-industry the artifices resorted to are of a nature which, while they can hardly be classed as deleterious to the health of the consumer, are such that they are to be condemned from the point of fraudulent misrepresentation.

Among the "tricks of the trade" which have been repeatedly discovered in the analysis of tea samples, the following practices are of sufficient importance to deserve consideration. (1) Facing; (2) the addition of spent or partially exhausted leaves; (3) the addition of foreign leaves; (4) the addition of foreign astringents and substances

designed to affect the apparent strength or quality of the product.

This is one of the oldest tricks of the tea-industry, and consists in treating the leaves with a coloring mixture for the purpose of giving an added gloss or color, by means of which leaves that have been damaged in the process of handling or which because of their age and natural color are of an inferior quality may be so improved in appearance as to enable the dealer to sell them at a price far in excess of that to which their real quality entitles him. Among the more commonly used coloring agents employed in facing are prussian-blue, indigo, turmeric, and plumbago. Soapstone and gypsum are also commonly added to the mixture to aid in the facing process.

Teas intended for home consumption by the Chinese and Japanese are not put through this facing process. Those intended for exportation are the ones which are the recipients of this irrational treatment.

So far as the danger to health is concerned, there is little or none associated with this procedure. True, prussian-blue is regarded as a more or less injurious substance, but the amount necessary for use in the facing of an entire pound of tea would not be sufficient to produce marked physiological effect if taken in one dose, so that the minute portion represented in an ordinary cup of tea is scarcely worthy of consideration. This fact of harmlessness, however, does not excuse the use of the substance for fraudulent purposes in another direction, namely that of deception as to quality of the leaves themselves. There is no reason why a dealer should be allowed to apply a beautifying treatment to a 25-cent tea and sell it for 50 cents just because he can do so with preparations which won't kill the consumer.

If this same consumer were to treat a five-dollar check so as to make it read fifty dollars and pass it off on this same dealer, he would raise his voice in a righteous howl for a penitentiary sentence for the perpetration of this fraud that could be heard at the gates of St. Peter—but let anyone protest against his fraud which robs the purse of the poor widow as well as the table of the orphan, and he immediately protests that he is the victim of persecution.

Any man who wilfully adds any agent to an inferior product for the purpose of so improving the appearance of that substance as to command for it the price of a superior article, be it fruit, tea, coffee, wine or what not, is a pure and simple counterfeiter and forger and

deserves to be dealt with as a common criminal, and not as a violator of the civil code. His proper place is as an associate of the other criminals of his class in the cells of our penal institutions. By comparison, his crime is by far the more hideous, for he seeks to defraud those who can least afford it, while the forger and counterfeiter usually seek as their victims those who are not materially effected by the loss.

Facing usually is easily detected with the microscope. A portion of the leaf is simply mounted and examined as an opaque object. The coloring matter can be detected as small dots.

In making an examination for prussian-blue, the leaves may be shaken with water and the detached particles examined under the microscope. If prussian-blue is present, transparent brilliant blue particles will readily be seen. Further proof of the presence of this substance can be found chemically by treating the detached particles with hot sodium-hydroxide solution, which discharges the color. This solution is then acidulated with acetic acid and ferric chloride is added. A characteristic blue precipitate is formed if prussian-blue is present.

Turmeric is identified under the microscope as round yellow cells filled with starch granules.

Indigo presents a greenish appearance under the microscope. It is not soluble in sodium hydroxide, thus distinguishing it from prussian-blue, but is soluble in sulphuric acid, with which it gives a deep-blue color.

In the palmy days, before the bugbear of pure-food laws and government inspectors, a very profitable practice in the tea-industry was the use of spent, or exhausted, leaves as an adulterant. Spent leaves are leaves which have been once steeped and afterwards rerolled and dried. This offered a fruitful source of profit in its day, but has had to be largely abandoned with the introduction of present-day inspection methods.

This was another bonanza for the dishonest tea-merchant of ante-food-inspection days, and is so profitable a practice that it is by no means entirely dead at the present time in certain quarters. If anyone thinks that these profitable frauds were all abandoned as soon as the Pure-Food Law was enacted, they have another guess coming. True, the more easily detectable frauds have perforce been thrown into the scrap heap, but in their place have been introduced new and more intricate deceptions which are being unearthed every year. The best brains ob-

tainable are employed in many instances for the sole purpose of devising new methods of adulteration which will supplant the older ones and baffle the skill of the inspection departments of the state, city and nation.

As examples of some of the more recent endeavors along this line might be mentioned the homogenizer for preparing an artificial cream, the introduction of agar-agar as a pure jelly, the use of stearin to replace the more expensive cacao-butter in chocolates, and the use of phosphoric and other acids as an aid in the manufacture of jellies, as well as the many expedients which are being resorted to to give the oleomargarin a color resembling that of natural butter without violating the law.

It must be said in justice to a large group of honest manufacturers that they are making every effort to produce a really pure and wholesome product without the use of adulterants, and, as has been stated in previous papers of this series, these dealers deserve the hearty support of all classes and trades, and above all others the support of the members of the medical profession.

Among the foreign leaves that have been reported in tea samples from time to time by various analyses, are willow, poplar, birch, rose, elder, and elm-leaves. In examination of tea samples for the presence of foreign leaves, the dried leaf should be soaked in

water, unrolled and placed under the microscope or magnifying glass. The genuine tea-leaf is very characteristic in its appearance. The upper three-fourths of the outer edge of the leaf presents a typical regular serration extending to the tip of the leaf. The veins of the tea-leaf also show a characteristic upward loop at their outer extremity.

"Lie tea" is a term applied to a mixture composed of tea dust, stems, fragments, sweepings, foreign leaves, gums, mineral matter, etc. It resembles very much an old-time gun-shot prescription and was commonly met with in the tea-markets of the United States and England a few years ago. Its sale has now been largely abandoned, due to the activities of the food-inspection officials.

Teas are sometimes found in the market which contain added astringents for the purpose of giving the appearance of possessing greater strength than they naturally possess. Catechu has been the favorite substance for use in this direction and is especially efficacious in improving the appearance of the infusion made from those teas which contain a considerable quantity of spent or exhausted leaves.

Sulphate of iron has also been occasionally found. The purpose of this latter addition has likewise been to deepen the color of the infusion and add to its astringency.

## The Eye

By JAMES A. De MOSS, M. D., Thayer, Kansas

1

What architect could plan and build  
This sphere of sense? And he so skilled  
That he this wondrous organ willed,  
With imagery illumined, filled  
With varied light?

2

'Tis here again.  
We see the work of hands divine;  
Marvels of beauty, perfect, fine;  
A work complete in every line;  
Which all in harmony combine  
Surpassing man.

5

Soul-windows they.  
The fire within doth flash and glow,  
Thoughts leap and strive to outward flow;  
The sweep of vision to and fro  
Invites men forward e'er to go—  
Day after day.

3

Here doth the soul  
Envisioned look from out its cell,  
Discerning facts, doubts to dispell,  
And by them all its fears to quell,  
To learn and know that all is well  
As years may roll.

4

So full of light  
The body is—this templed clay—  
Lit by the beauty of the day,  
By shining suns so far away,  
Of many shades and changing ray—  
Dispelling night.



# WHAT OTHERS ARE DOING

## ATROPINE IN THE TREATMENT OF PHOSPHATURIA

Umber (*Therap. d. Gegenw. Nouveaux Remèdes*, 1913, 30, 182) advises the cautious administration of atropine, in 0.5 mgm. (1-128-grain) doses after each meal, in order to increase the acidity of the urine and thereby check phosphaturia. He says that, if necessary, the dose may be increased to 1.0 mgm. (1-64 grain) and continued for a fortnight, when it may again be reduced to 0.5 mgm.

## BACTERINS IN OESTETRICS

S. C. Mason (*Medical Council*, June, 1913) writes that he uses a combination bacterin containing streptococci, staphylococci (albus, aureus, and citreus), pneumococci, and colon bacilli in all of his obstetrical and surgical cases. [This combination is known as the Van Cott bacterin.—Ed.]

Dr. Mason states that the use of this bacterin gives him a strong feeling of security. Those who employ it claim it to be an effective prophylactic of septic complications in the puerperal state. A number of surgeons now resort to it whenever they have to repair the perineum or cervix.

## SOME USES FOR QUASSIN

According to Pigeaud (*La Dosimétrie*, March, 1913), crystalline quassin is one of the best of our bitters. It decidedly increases the appetite, has a marked tonic action, and is also stimulant to the relaxed muscles of the intestine and adnexa. He also asserts that it had a decided anticongestive action upon the liver and, given in association with boldine, it increases the secretion of bile. Through its stimulant action upon the intestine, it promotes contraction of the bowel, thus favoring the passage of the bile and even of biliary calculi. Pigeaud says it should be employed to reinforce the action of boldine in hepatic colics and in cases of icterus owing to retention; indeed, even in some cases of cirrhosis.

Quassin should be employed in the treatment of chlorosis, and of other chronic diseases where increase of the appetite is indicated. He advises the association of strychnine arsenate, iron arsenate, lithium benzoate, and quassin in the treatment of diabetes.

## THE INTESTINE IN TYPHOID FEVER

According to *Paris Médical* for December 21, 1912, Dr. Triboulet stated, at the meeting of the Société Médicale des Hôpitaux (Paris), that it is possible to follow the various phases of intestinal reaction in typhoid fever septi-cemia by simple and practical coprologic investigations.

Ochre-colored stools are characteristic of normal typhoid fever; certain forms of diarrhea are due to discharges produced by biliary infection. These forms of defecation indicate a less serious type of typhoid fever. Diarrhea forms a complication of the disease if it is accompanied by mucus and by blood. The presence of the latter in normal stools should arouse suspicion of intestinal trouble.

Sometimes intestinal insufficiency, with collapse, may be observed, and it may be asked whether this serious occurrence is not a most important element of the severe intestinal forms of typhoid fever and if it does not stand in relation to an insufficient functioning of the glandular apparatus.

## SOME USES FOR PILOCARPINE

Geo. E. Nour (*Medical Council*, June, 1913) advocates pilocarpine as a useful remedy in the treatment of pruritus, especially of pruritus vulvæ, which, he says, is relieved by 1-4- to 1-8-grain doses of the nitrate or the hydrochloride. He has also repeatedly found this drug of value, hypodermically given, in 1-20-grain doses, gradually increased to 1-4 grain, in the treatment of tuberculosis. This application, however, certainly should be qualified, on account of the depressing character of the drug. The pilocarpine assuredly is contraindicated when the patient is suffering from night sweats.

The author claims that pilocarpine in small doses, taken by the mouth with pepsin and hydrochloric acid, by greatly increasing the mucous and salivary secretions of diphtheria patients, facilitates the expulsion of the diphtheritic membrane. For erysipelas, he recommends the use of fluid extract of jaborandi, although, certainly, the alkaloid pilocarpine is a much more serviceable and satisfactory drug in this disease. Pilocarpine is the remedy *par excellence* in the sthenic form of erysipelas; it should not be given in the asthenic forms of the disease.

Nour also finds pilocarpine efficient in several other directions; as, for instance, as a galactagog; amblyopia, choroiditis, iritis, and other eye affections; also in uremia and puerperal eclampsia; in mumps, eczema, herpes, prurigo, acne.

As Dr. Nour says, "pilocarpine is a charming remedy, but its depressing effect on the heart should never be forgotten."

#### IRON AND ARSENIC IN ANEMIA

According to Swetkoff, in *Nouveaux Rémèdes*, arsenic, when taken alone, does not appear to affect the character of the blood. It neither influences the amount of hemoglobin present nor increases the number of erythrocytes, while arsenic has a favorable influence on both. But here is a valuable therapeutic point which one should keep in mind.

The beneficial action of the iron upon the blood-content is markedly intensified when it is administered with arsenic. If this is done, in three weeks the increase of hemoglobin is three times as great as when iron is administered alone. Perhaps this fact, so beautifully brought out, may explain why it is that preparations like the arsenates of iron, quinine and strychnine, alone or combined, are so remarkably efficacious.

#### BENEFICIAL INFLUENCE OF ARSENOBENZOL UPON THE FETUS OF A LUTETIC MOTHER

In a memoir upon the treatment of pregnant syphilitic women, published by the Medical Society of the Hospital of Paris (cf. *Zentralbl. f. d. Ges. Gynaekol.*, 1913, p. 106), Jeanselme, Vernes, and Block, in collaboration, detail their experience with salvarsan as a possible preventive of congenital lues. The results have been extremely encouraging; for, out of 18 women thus treated, 16 gave birth to living, viable

children. Of that number of children, 4 died afterward of diseases not specific; while the other 10 have displayed not a sign of the infection after a considerable period of observation. As to the 2 dead-born fetuses, the authors assume that they already had died before initiation of the arsenical treatment.

A full description of the method of administering the injections of salvarsan is given; the average was about six doses in one-week intervals. The authors also tell of two habitually aborting women showing the Wassermann reaction which both had received since a salvarsan course, but up to the time of going to press they had not been threatened with abortion.

#### PITUITARY GLAND AS AN OXYTOCIC

The experience in 25 cases, in private practice, with pituitary gland for promoting labor-pains, leads M. Jacoby (*Zentralbl. f. d. Ges. Therap.*, 1913, p. 1) to recommend it for trial as an efficient, yet safe, agent for the purpose; moreover, he thinks midwives should be made familiar with its properties, so that they may be influenced, when confronted by cessation of expulsive pains, to call upon the doctor for its employment, instead of ignorantly proceeding with their intrauterine manipulations.

Dr. Jacoby has found the agent (he employed pituglandol-Hoffmann-LaRoche, 1.1 Cc., injected under the skin of the thigh) to act promptly (in 4 to 10 minutes) and vigorously, and continuing over three hours, while being regularly rhythmic, at all times when natural labor-pains were due, as at or near term or in promoting spontaneous abortion in progress. In 4 instances, he made two injections, when contractions correspondingly increased in vigor. In 5 cases of artificially induced abortion, no uterine contractions could be induced.

#### CONNECTION BETWEEN THE CORPUS LUTEUM AND MENSTRUATION

Basing upon evidence obtained in 82 cases, R. Meyer and C. Ruge, of the Universal Frauenklinik at Berlin (*Zentralbl. f. Gynaekol.*, 1913, p. 101), find the following relationship to subsist between the formation of the corpus luteum and menstruation, in a normal 28-day cycle.

The follicle matures, in all probability, after menstruation is established, on about

the eighth day, although possibly during the period of flow; lutein formation starts within the second week, being in full operation after the middle of the third week after menstruation began, and at its acme just previous to that; retrogression takes place during the menstrual flow, this process occupying about two weeks for completion.

Put in a different way: First, hyperemic, stage of the corpus-luteum formation during the interval—stage of vascularization of the follicle at the entrance of the premenstrual phase; maturation during the advanced, premenstrual, stage; highest point of development of the follicle and of the mucous membrane shortly before the flow; retrogression of both during and after that period. The corpus luteum retains its fullest development during pregnancy.

#### RENAL IRRITATION FROM SALICYLATES OBVIATED BY ALKALIS

Previous assertions, notably by Frey, to the effect that alkalis are capable of preventing irritation of the kidneys by salicylates, are corroborated by Glaesgen, who reports (*Muench. Med. Woch.*, 1911, p. 1125) his experience with 8 patients, 5 of these afflicted with polyarthritis. To his large doses of sodium salicylate or of aspirin, he added twice their weight of sodium bicarbonate; and in not one instance did albumin appear in the urine of these persons. He did not observe any diminution in the activity of the medicament.

#### BOILED VS. RAW MILK FOR INFANTS

That mother's milk is the best food for infants is now an axiom, but the question as to the relative value of raw and boiled animal-milk still is an open one. Of late, E. Janet has reinvestigated this important problem, both in his own extensive practice and by observation outside and by an exhaustive research in the literature.

Janet's conclusion is (*Ergebn. d. Inn. Med. u. Kinderh.*, 1913, p. 635), that there is no difference in nutritive value of boiled and unboiled milk when it is derived from an animal of the same species (i. e., cow's for calves, human for infants, etc.). On the other hand, if the milk is heterogenous (yielded by a female of a different species or genus), properly boiled milk is even superior to the raw.

In this country pasteurization is almost universally preferred to boiling. It is alleged

that the latter process favors the occurrence of infantile scurvy; certainly it produces decided changes in the character of the milk, destroying the ferments, impairing the fat emulsion, precipitating the lime-salts, eliminating the natural antiseptic and antitoxic properties, favoring putrefaction, splitting up the lecithin, and impairing the taste. On the other hand J. S. Fowler ("Infant Feeding") says that "boiling the food for 5 to 10 minutes is (in temperate climates) perfectly safe and satisfactory, provided the milk has been kept clean and not more than twelve to fifteen hours has elapsed since milking."

#### HYOSCINE-MORPHINE USES

Gillet speaks highly ("Manuel Pratique de la Médication Hypodermique"), of the association of hyoscine and morphine, about which he says:

"The indications for this combination are very extensive. Its antispasmodic, sedative, and hypnotic properties are much more marked than those of morphine, and make it possible to employ its calmative action in painful and spasmodic conditions where morphine either does not act at all or acts poorly, as, for instance, in uncontrollable vomiting, convulsions, eclampsia, tic douloureux, rebellious neuralgia, insomnia, excitement of the insane, etc. Thanks to the corrective action of hyoscine, this combination may be administered to patients who bear morphine alone poorly, while in all its applications the likelihood of morphinomania is considerably diminished."

#### RINGER'S SOLUTION FOR THE TOXICOSES OF PREGNANCY

While citing previous reporters, Elise Eichmann, of the school for nurses at Osnabrueck, tells (*Muench. Med. Woch.*, 1913, p. 183) of her own success with injections (intramuscular) of Ringer's solution in the toxicodermias of pregnancy, and in other toxicoses; of pregnant women, including pregnancy-kidney, eclampsia, and the vomiting of pregnancy. The dose of the solution was 100 Cc., injected, preferably, intragluteally.

In addition to the injections, the patients were placed upon a strictly vegetarian diet; for, incidentally, the author rejects the placental theory of these toxicoses, but rather assumes their origin in alimentary intoxications. The Ringer solution, the authoress holds, dilutes the blood and favors excretion of the toxins through increased diuresis.

while the generation of the latter is minimized by the absence of animal food. Its formula will be found elsewhere in this department.

Isn't it interesting to note the increasing tide of renewed interest in intestinal toxemia as a factor in disease. Time was when scientific workers were inclined to pooh-pooh at it—but not now. The medical workers of the world have always known that it was of importance to "clean out, clean up and keep clean," even if they did not practice these simple expedients. So science and "empiricism" are ultimately compelled to collaborate.

Do not forget, when treating the toxicoses of pregnancy, the fundamental value of the gentle morning saline flush, nor the help to be obtained by intestinal antiseptics.

#### OXYGEN-THERAPY FOR TOXEMIA OF GESTATION

Arguing that during pregnancy the mother's body requires excess of oxygen, and assuming that some of the toxemias of that period (headache, edema, dyspnea, etc., the usual precursors of eclampsia) are the consequence of insufficient oxygenation, G. P. Shears reports in *The Medical Record* (1913, p. 66), that good results have followed, in several instances, from the liberal introduction, either by inhalation or injected, of the pure oxygen. He promises further reports; and this suggestion seems well worth following up.

#### ARTIFICIAL SERUMS

There is an interesting article upon the subject of artificial serums, by Gillet, in "Manuel Pratique de la Médication Hypodermique." The remedies of this class are resorted to in various grave conditions, when there is need of strengthening the heart, as in collapse, shock, and hemorrhage. Gillet says, however, that certain rules should be followed in using these injections.

Except in the treatment of profuse hemorrhages, there is no necessity for introducing large quantities. Doses of 30, 60 or 100 Cc. or more, repeated two or three times a day, suffice to produce a stimulant effect. But even these small doses may be dangerous if a serum containing chlorides is employed in renal or cardiac affections, in the course of which there is arterial hypertension, with chloride retention, as occurs in cardiac or cardiorenal arteriosclerosis, or interstitial nephritis, and when the permeability of the

kidneys is much reduced. Here, sulphate of sodium replaces the chloride.

In acute affections, moderate doses (100 Cc. as a maximum) are the rule. However, in the affections accompanied by hemorrhage or considerable loss of body-fluid, abundant injections are indicated; for example, in infantile gastroenteritis, where 10 to 15 Cc. of the chloride solution may be given two or three times a day to a nursing weighing four to six kilos. For larger children, the dose may be increased to 200 Cc. in twenty-four hours. The injection should not be repeated more than on four days in succession. In cholera, in dysentery, and in typhoid fever complicated with intestinal hemorrhage, we may inject 1500 to 2000 Cc. daily by the intravenous route. As a general rule, the effect of these injections is excellent in all affections that are characterized by loss of body-fluid.

Postoperative traumatic shock accompanied by abundant hemorrhage also is a prime indication for abundant injections of artificial serum. On the other hand, in the acute intoxications, such as eclampsia, uremia, and diabetic coma, the utility of serum injections is problematic.

The artificial serum most employed consists of: chloride of sodium, 7.5 to 9 Grams; distilled water, 1000 Grams. The serum containing 9 Grams of sodium chloride per 1000 freezes at  $-55^{\circ}$  C., the average point of freezing of blood-serum. Below this content of salt, the sodium-chloride solutions are slightly hypotonic.

The author then gives the formulas of a number of artificial serums in common use:

*Hayem's Serum.*—Sodium chloride, Gm. 5; sodium sulphate, Gm. 10; distilled water, Gm. 1000.

The following two formulæ for alkaline serums is given:

*Schwartz's Serum.*—Sodium chloride, Gm. 6; solution of caustic soda (Codex), gtt. 1-15; ["copy," but dose seems small.—Ed.] distilled water, Gm. 1000.

*Calvagni's Serum.*—Sodium chloride, Gm. 7.5; bicarbonate of sodium, Gm. 5.0; distilled water, Gm. 1000.

In addition to these, the author mentions a number of other popular formulas, some of which we quote:

*Ringer's Solution.*—Sodium chloride, Gm. 6; calcium chloride, Gm. 0.1; potassium chloride, Gm. 0.75; calcium bicarbonate, Gm. 0.1; distilled water, Gm. 1000.

*Ringer's Solution (Modified by Netter).*—Sodium chloride, Gm. 7; potassium chloride,

Gm. 0.30; sodium bicarbonate, Gm. 0.20; distilled water, Gm. 1000.

*Locke's Solution.*—Sodium chloride, Gm. 6; calcium chloride, Gm. 0.26; potassium chloride, Gm. 0.4; calcium bicarbonate, Gm. 0.03; distilled water, Gm. 1000.

*Howell's Solution.*—Sodium chloride, Gm. 7; calcium chloride, Gm. 0.26; potassium chloride, Gm. 0.30; calcium bicarbonate, Gm. 0.2; distilled water, Gm. 1000.

#### BACTERIN TREATMENT OF RHEUMATOID ARTHRITIS

There are two interesting papers, on the subject named in the title, in *The Lancet* of May 17. The first, by Crowe, is a study of the bacterial flora of the urine in cases of rheumatoid arthritis. A considerable number of cases were investigated, the most striking fact being the demonstration of the presence of a staphylococcus resembling somewhat the staphylococcus pyogenus albus. This he called staphyloid coccus A. Crowe says this closely resembles, and certainly may be a member of, that group of germs called micrococcus epidermidis albus.

In 14 cases of rheumatism, this growth was found in 5; in 3 cases of neuritis, it was found in 2; and in 22 cases of rheumatoid arthritis, it was found in 14. Streptococci were also found in 8 of the cases of rheumatism; in all the cases of neuritis; and in 6 of the 22 cases of rheumatoid arthritis. On account of its possible etiologic connection with rheumatoid arthritis, Crowe prepared, and recommends, a special staphyloid bacterin.

In the succeeding paper in the same issue of the *Lancet*, Soltau gives his experience in the treatment of some cases of rheumatoid arthritis with Crowe's staphyloid bacterin. His method of treatment was as follows:

In cases showing mixed infection, that is, association of the staphyloid coccus with the streptococcus, he began treatment with a bacterin made from the secondary organism, the streptococcus. Following its administration, the joint condition was ameliorated and the patient usually experienced a sense of improved wellbeing, although in no instance was there complete arrest of the articular lesions following the use of this bacterin alone. He says that it paves the way for the use of the staphyloid bacterin, which was subsequently administered and which is followed by very marked improvement in the arthritis, amounting in some cases to apparent cure. The word "apparent" was used advisedly,

because the lapse of time is yet too short to allow of any dogmatic statement as to the permanence of the cure.

In cases in which there was a single infection with the staphyloid coccus, without the streptococcus involvement, the staphyloid bacterin only was used. Soltau says that the question of dosage has been a difficult one to determine, owing to the marked reaction which sometimes follows even minute dosage, even as low as 500,000 dead bacteria. In one case the dose had to be reduced to 150,000 dead bacteria, at the beginning of treatment. Usually, however, the treatment is begun with 500,000, raising subsequent dosage by 500,000 or even less.

Even when small doses are used the reaction is sometimes severe. The characteristic symptoms are, increased intensity of the joint, pain, swelling, slight rise of temperature. The injections are usually made at weekly intervals, but each case has to be modified according to the reaction and occurrence. In one obstinate case improvement began to be manifest only when the injections were reduced to five-day intervals.

The first favorable symptom following bacterin treatment has been the reduction of nocturnal pain, so as to permit of more sleep and improvement in general health. The neuritic pains so often complained of usually have been relieved more rapidly than the articular pain, but the most noticeable feature of the treatment has been the gradual relaxation of the joint. In fact, several patients have complained that they felt weaker, this resulting from the fact that, with increased flexibility and range of movement, the atrophied muscles are not prepared to do the increased work placed upon them.

The treatment must be supplemented by gentle massage of the muscles, taking care to avoid the joint, so as to obviate autoinoculation. Joint swellings are last to disappear, but in some instances improvement has been very marked in this respect, while the glossiness of the skin so characteristic of the disease has often disappeared.

In the same number of *The Lancet*, A. E. Garrod is reported as stating, at a meeting of the Royal Society of Medicine, that the condition of chronic rheumatoid arthritis might be secondary to fecal infection in various parts of the alimentary canal. This is in line with our own experience and that of many others, and suggests the necessity—whatever other treatment may be given—of keeping the alimentary canal clean and



aseptic. This is of fundamental importance, whether bacterins are resorted to or not.

#### DANGEROUS ANTISEPTICS

The newspaper publicity which has been given to the Georgia banker who succumbed to renal degeneration following a poisonous dose of bichloride of mercury, taken in tablet form instead of the aspirin tablet he thought he was getting, again brings up the danger of using that powerful poison in medicine. Since Mr. Walker's death, numerous other similar occurrences have been reported. Nobody knows how many lives have been lost, because corrosive-sublimate tablets are easy to get, but the question which should interest the medical profession is, whether there are not other remedies just as safe and just as effective as antiseptics, yet, less dangerous.

There is no doubt that we do have such harmless antiseptics. Thus, for instance, surgeons have generally given up the use of mercury bichloride for sterilizing the operative field and now mainly depend upon iodine, which, though it may be irritant to the skin, certainly does not kill anybody. Another harmless substance of this kind is chinolol, which is not only more powerful than the bichloride itself, but absolutely harmless to the human host. Not only is this preparation non-poisonous, but it is nonirritant as well. Physicians certainly should be familiar with it, as well as with other harmless antiseptics.

#### CALCIUM SULPHIDE AS AN ANTIDOTE FOR CORROSIVE-SUBLIMATE POISONING

Referring once more to that unfortunate Walker case of poisoning with bichloride of mercury tablets, it is interesting to note that Hayward and Allen (*Jour. A. M. A.*, May 31, 1913) recommend calcium sulphide as an antidote. While it is true that the white of egg is the general antidote, and is of value up to a certain point, these writers bring out the fact that the hydrochloric acid of the stomach increases the solubility of the mercury salt, its solubility being still further increased by the presence of the citric acid added to the ordinary antiseptic tablets. Their comment on this subject, and especially anent the use of the calcium sulphide, is of particular interest, and is in part as follows:

"Mercuric compounds are acknowledged to be toxic even in small doses; mercurous

compounds can be tolerated in much larger doses; hydrogen sulphide reduces mercuric to mercurous, whether the conditions are acid or alkaline, even in the presence of citric acid, a substance which inhibits many chemical reactions. Calcium sulphide (calx sulphurata, U. S. P.), 1 Gram of which is capable of reducing 2.31 Gram of mercuric chloride, hydrogen-sulphide water, natural or artificial, which can be tolerated by the stomach, and enemas of which may be administered without serious danger, will all act in this manner, first reducing the mercuric chloride to mercurous chloride and further to mercurous sulphide. On such grounds it would seem that the sulphides are the logical antidote for mercuric poisoning."

Hayward and Allen state that there have been in Detroit two instances of poisoning by the mercury antiseptic tablets. One of the patients died; the other was given calx sulphurata and was alive when their communication was written.

This is of interest. Calcium sulphide is a drug with which every reader of CLINICAL MEDICINE must be familiar, and probably is of value in as large a range of disease-conditions as any remedy in our materia medica. Don't forget to use it in bichloride of mercury poisoning, nor, also, in whooping-cough, scarlet-fever, furuncle, and a lot of other everyday conditions.

#### EMETINE IN THE TREATMENT OF TUBERCULOUS HEMOPTYSIS

Flandin and Joltrain reported to the Société Médicale des Hôpitaux (*Gazette des Hôpitaux*, April 17, 1913) that they had conceived the idea of employing emetine in the hemoptysis of tuberculosis, for a long time treated by the classical authors with ipecac. Chauffard, Dopter, Rouget, and Dufour have observed the rapidity with which, under the emetine treatment, the bloody appearance of the pus was made to disappear in cases of abscess of the kidney or from dysenteric stools.

Without wishing to draw definite conclusions from a single fact, Flandin and Joltrain report their experience in the case of a man suffering from very profuse tuberculous hemorrhage from the lung, associated with high fever, which did not yield to the ordinary methods of treatment, such as ice, calcium chloride, ergotin. A single injection of 4 cgm. of emetine hydrochloride caused the temperature to fall from 40° C. (104° F.) to

37.2° C. (98.9° F.), and the hemoptysis was arrested abruptly and did not reappear.

#### AMEBIC DYSENTERY TREATED WITH EMETINE HYDROCHLORIDE

Dufour and Huers presented to the Société Médicale des Hôpitaux (see *Gazette des Hôpitaux*, April 17, 1913) a patient attacked with amebic dysentery contracted, in the Portuguese Indies, in November, 1911. This dysentery occurred in periodic crises every two or three months in the form of bloody and very abundant diarrhea, in the treatment of which various measures were resorted to, but with only mediocre or temporary results.

The patient was admitted to the Broussais Hospital, March 28, during one of these crises, at which time he had fever, his stools were loaded with amebæ, while the serodiagnosis was negative as to the Shiga bacillus. He was subjected to a course of subcutaneous injections of emetine hydrochloride, receiving a total of 30 cgm. (5 grains) in the first eight days. On two consecutive days he was given a small enema containing 12 cgm. of emetine, this being retained and absorbed.

When the man was admitted to the hospital, the number of his stools was about 16 in twenty-four hours. At the time of this report the patient had not more than two stools daily, and these were soft and not bloody. The improvement had been so rapid as compared with the results obtained by the treatment heretofore in vogue that the authors presented this patient as another evidence of the efficiency of the emetine treatment.

Chauffard at the same meeting also reported upon a case of a young engineer who had contracted dysentery at Salonica, and who was cured by emetine. In this report there are two especially interesting points; namely, first, an error had been made in diagnosis, the absence of ameba having led to a diagnosis of bacillary dysentery; second, the complete failure of all preceding therapeutic measures, khosam and simaruba alone having given temporary benefit.

#### EMETINE IN DYSENTERIC ABSCESS OF THE LIVER

At the meeting of the Société Médicale des Hôpitaux, of March 15, 1913, Chauffard (see *Gazette des Hôpitaux*, March 18, 1913) reports another case, confirming his previous communications and proving the remarkable

influence of emetine upon amebic dysentery and its complications.

As in the case reported by Flandin and Dumas, this was one of abscess of the liver which had been opened and which rapidly healed following the introduction of three doses, of 4 cgm. each, of emetine injected under the skin, and of 8 cgm. inserted in the cavity. The patient was a man, 40 years of age, attacked by dysentery in July, 1912, and having suffered from several acute attacks of amebic hepatitis. He entered the hospital exhibiting the symptoms of abscess of the liver. He was operated upon by Labey, who drained out a sterile, chocolate-colored pus, finding the amebæ in the walls of the abscess. After the emetine treatment, the discharge of pus from the wound rapidly ceased, and eleven days later the liver was completely cured.

At the same meeting Rouget cited the case of a patient who had suffered from abscess in a torpid form, without fever, since 1905. Every year the patient suffered from painful attacks, that were referred to the side of the liver. The diagnosis was doubtful for a long time, but recently, by radiography and by exploratory puncture, it was shown to be a case of amebic abscess. Having been informed by Chauffard of the value of emetine in such cases, Rouget, some days later, made a lumbar puncture, withdrawing 200 Cc. of pus, and introduced under the skin 8 cgm. of emetine. The improvement was extraordinarily marked and the patient now appears cured.

Chauffard, at the request of Milian for information, declared that the toxicity of emetine was, experimentally, very slight, and that in the doses employed, which seemed sufficient to bring about a cure in man, the toxicity was *nil*.

#### HYPODERMIC INJECTION OF IRON AND ARSENIC

Considerable interest has been manifested in this country for the last few months in the hypodermic injection of iron. Given subcutaneously, this remedy is said to cause an increase in the number of red cells and in the percentage of hemoglobin much more rapid than when the drug is administered by the buccal route.

We have had a number of inquiries as to the forms in which the drug may be used. As every reader of CLINICAL MEDICINE knows, the iron usually administered by the mouth is insoluble in water and, therefore, unsuited

for hypodermic purposes. Some of the preparations which have been employed hypodermically have proven irritant and, hence, painful, so that the selection of a proper form is a matter of considerable importance.

Gillet recommends ("Manuel Pratique de la Médication Hypodermique") the use of the following iron salts: the citrate, the ammoniocitrate, the glycerophosphate, and the arsenate; but he says that most frequently the cacodylate and the methylarsenate are employed, these two being the least painful and the most rapidly assimilated of the ferruginous preparations, while they have the advantage of combining the reconstructive properties of the iron with the hematopoietic function of arsenic.

Of the citrate or the ammoniocitrate, 1 to 3 Grams may be dissolved in 10 Cc. of distilled water. Of this solution, 1 to 2 Cc. may be given daily in intramuscular injections. Another combination consists of: glycerophosphate of iron, 0.5 Gram; glycerophosphate of sodium, 0.5 Gram; distilled water, enough to make 20 Cc. The addition of the glycerophosphate of sodium is necessary. The dose is 1 to 2 Cc. a day, administered intramuscularly.

In tuberculosis, when there is a congestive tendency or hemoptysis, the ferruginous injections must be given with care.

For chlorosis or anemia accompanied by hemorrhage, the following ferruginous "serum" has been recommended:

Ferric chloride, 0.05 to 0.055 Gm.; glycerophosphate of sodium, 4.0 Gms.; water enough to make a concentrated solution. Bring to the boiling point, then allow to cool. Now add 1 Gram of sodium bicarbonate, and mix with the following solution: Sodium chloride, 6.5 Grams; potassium chloride, 0.3 Gram; calcium chloride, 0.2 Gram; magnesium sulphate, 0.3 Gram; glucose, 1 Gram; oxygen, to saturation; water, 1000 Cc.

Of this solution, 500 Cc. is given at a single injection. It should be sterilized in an autoclave before administration.

As already stated, the author particularly recommends the cacodylate and the methylarsenate of iron. The first is given in the following combination: Cacodylate of iron, 0.3 Grams; distilled water, 10 Cc. Of this solution, 1 Cc. contains 3 cgm. of the active drug and may be employed as a single dose.

Methylarsenate of iron is given in the following form: Methylarsenate of iron,

0.2 Gram; methylarsenate of sodium, 0.2 Gram; distilled water, 10 Cc. The addition of the methylarsenate of sodium is necessary.

These preparations should be injected every day for eight to ten days in succession, and may be resumed after eight days of rest. By never exceeding a certain dose and by interrupting the medication from time to time, the danger of intoxication need not be feared, and the dosage may be gradually increased. For arsenic action alone, the author recommends cacodylate or methylarsenate of sodium solution, from 3 to 5 percent, in distilled water. This may be given in the same manner as the cacodylate or the methylarsenate of iron.

These salts are recommended in anemia, convalescence, and all chronic affections characterized by progressive loss of strength and weight.

NOTE.—In the French book, from which this article is abstracted, the "green citrate" of iron is recommended. So far as we are able to ascertain, there is no green citrate. The citrate of iron (which is official in this country) forms thin, transparent, garnet-red scales, which are slowly soluble in tepid water—considerably less soluble than iron and ammonium citrate. However, ferric citrate and sodium phosphate dissolved in water and evaporated to dryness yield light-green scales which are readily soluble. The resultant consists of phosphate of iron with sodium citrate. Possibly this is the "green citrate of iron" referred to by our French confrère.

#### DISINFECTION OF SKIN WITH ALCOHOL

Last year (September, p. 933) we gave the deductions arrived at by Beyer on the value of plain alcohol for preparing the field for surgical operation. Now Z. Ozaki (*Deutsch. Zeitsch. f. Chir.*, through *Zentralbl. f. d. Ges. Gynaekol.*, 1913, p. 113) confirms the claim that the best strength of alcohol to employ is that of between 60 and 80 percent. However, Ozaki finds that the bactericidal action of the alcohol is greatly lessened—almost worthless—if the skin has not first been washed (briefly) with a warm soap solution—and this is claimed to be far superior to a preceding prolonged scouring with brush and hot water. Besides destroying the bacteria, the alcohol serves to harden the epidermis.

# MISCELLANEOUS ARTICLES

## Quinine and Urea Hydrochloride in the Treatment of Alcoholism

ALCOHOLISM is a protean disease, the "exceptions" almost the sole constant feature of its "rules." If one states that alcohol causes the face to flush, or that it produces neuritis, he meets an equally true, but wholly contradictory, viewpoint, which may be summed up by the words "not always."

The craving for renewed stimulation felt by the drinker may be a cry from the nervous system, still, its outward manifestation is characterized by a demand from the alimentary canal. As an evidence of this may be considered the substitutive service of mixtures containing capsicum, ginger, nuxvomica, gentian or other bitter or pungent remedies. In the matter of alcoholic beverages, particularly the ardent spirits, there is contradiction even as to pleasurable taste, for many confirmed drunkards actually abhor the taste of whisky or brandy. In short, I think that, if one wished to preach a temperance-sermon upon alcohol and the devil, he might well choose as a text the words of Goethe's Mephistopheles, "I am the power that denies."

My patients are women, some of whom have become addicted because of painful menstruation and the relief afforded by hot drinks containing some distilled liquor. Relief and repetition fix a habit; yet, all the time the first and natural repulsion remains. A woman may be anxious to work out her own salvation, may aid her physician to the best of her ability, but, if the doctor incautiously should remark or convey the impression that "she loves liquor," then she no longer has respect for his opinion and his day of good influence is past. For, this one thing that woman does know—she does *not* love liquor. A woman of good instincts hates the thing that degrades her, even when using it and abusing its use.

All medical writers direct their therapeutic weapons at the gastrointestinal tract, as if

that tract began at the stomach, completely ignoring the self-evident fact that the gateway is opened or shut by the lips. Therefore, while the sensation of "sinking at the pit of the stomach" is well known, no one so far as I know has described any symptoms manifested by or about the mouth and lips.

Discard the questions about taste and tasting-good from all calculations. They have little to do with the matter of craving. Patients of mine have drunk soap liniment when they could not obtain liquor. A real toper will shudder at the taste of whisky, but after the dram has gone out of his mouth and into his stomach he will smack his lips, utter a resounding "Ah" of satisfaction, and his whole appearance changes. He is rejuvenated by "the dog that bit him." While it is in his mouth, and briefly waiting at the bar of taste, the whisky makes him shiver; but when once it is beyond palate and taste and is gratefully warming up his stomach he feels "fine as silk"—at least for a time—and amply repaid for the struggle which he calls "downing it."

My studies of the craving for the stimulant lead me to think that a common and first outward manifestation is a slight tremor or uneasiness about the mouth, being evidenced by wiping the lips with the back of the hand or with a handkerchief; and should an alcoholic put his hand or finger to the mouth, it is a danger-signal, vigilance must be doubled, and all extra precautions be at once established. This movement is preliminary to an impending mad desire for alcohol.

The patients say that these peculiar sensations about the lips will not stop until the demand for alcohol is satisfied; then the lips feel like the foot when it is "going to sleep," and—"All is well" (sic!). At first, I was unable to understand what this feeling was like. It has nothing to do with any local effect from whisky. Painting the patient's lips with whisky and not allowing any

to run down his mouth and into the stomach was torture and would sometimes intensify the tremor. Then I myself swallowed one ounce of rye whiskey diluted with plain water, and repeated this dose every ten minutes, until I got the sensation after the fifth dose.

This sensation can hardly be termed formation; but that, combined with a slight hesitancy in coordination, is what it most resembled. I take it to be the prodromal stage of stammering, plus a mild vasomotor dilatation. This feeling may be closely imitated, upon the inner surfaces of the lips, that is, by placing a half or a full grain of quinine and urea hydrochloride upon the patient's tongue and allowing it to dissolve. Repeat the process every half hour or as often as required to get the effect. The bitterness of the medicine is an advantage, but its distinct value lies in its simulation of the beginning of incoordination, the symptom which the patient experiences after a good, big drink.

One of the most valued standbys of the neurologist is what is known as "sidetracking." The use of the hydrochloride, as aforesaid, is a sort of "sidetracking." It gives the patient a desired sensation, it does not give him alcohol, and it changes the current of his thoughts.

DOUGLAS H. STEWART.

128 West 86th Street,  
New York, N. Y.

#### MEMBRANOUS CROUP: BIG DOSAGE OF DIPHTHERIA ANTITOXIN

There may not be anything remarkable in this case, but while the patient was in my charge, I thought it would be remarkable if she recovered. It was on March 9 when I was called to see this patient, a woman 35 years of age. I found her sitting up in a chair, rather embarrassed for breath and suffering from what looked like ordinary croup (at any rate that is what I diagnosed), and immediately I got busy with iodized calcium. After two days of this and other treatment, we did not get the expected results, but—whisper it—the patient began coughing up some portions of membrane. Then, by dad! I took a "tumble," and when I landed on my feet again I was pumping antitoxin into my patient, and kept this up until I was almost ashamed to look my patient in the face; and by the time I quit using the "juice" the serum-makers had declared an extra dividend. For four days I was on the job with a loaded antitoxin-syringe in one hand

and calcein in the other and fear in my heart; then things began to loosen up a little.

I took a long breath and began to survey the landscape. I found about seventeen different punctures in seventeen different places. Well, they did not worry us any, for my patient was improving; but those punctures reminded me of a case of rheumatism I had under my care some years ago back in Ohio. When I called upon that patient, I found him sitting up in a chair. The next day he was in bed and feeling pretty tough. I asked him how he felt. He was a slow-talking man, but I finally got out that there was a change of some kind taking place. I could hardly keep my face straight, but managed to ask him how many times his bowels had moved. "Seventeen times!" he answered. Well, I had to explode then.

But to get back to the diphtheria case. Things kept on loosening up, my patient was improving, and I stopped the antitoxin; however, I continued with the iodized calcium. Then I began to count the cost, and found that we had used 53,000 units. I do not know that we broke any records—we were not after any record—but, thinking the matter over later, I remembered how some "pirate," back in little old New York, some years ago had used 90,000 units in a child sick with diphtheria. So, I guess, we shall have to hand it to him. But I fancy we were going some, at that.

As I said in the beginning, I do not know that this case is so very remarkable, still—listen. On April 6 I was again called to see this lady, and when I left her this time she was the proud mother of a 9½-pound boy. That is going some, too, eh?

W. B. SECREST.

Franklin, Idaho.

[We are all of us under obligations to Dr. Secrest for reporting this case, for we *should* emphasize the necessity of giving these big doses of antitoxin sometimes. In the majority of cases, it is true, from 5000 to 10,000 units are enough, but in the very severe cases, especially of the laryngeal type, when a primary dose of 10,000 units does not produce the desired and expected improvement, then the physician should stop "sending a boy to mill." Give the antitoxin with a bold hand—fearlessly, in "dose enough." Don't fractionate your dosage too much; Park has shown that best results are obtained when the antibodies are introduced in large enough quantities to combine with



whatever toxins may be present—not with a small part of them merely. Don't be afraid of the large dosage. Hill, in "International Clinics," says: "Even in the administration of extremely large doses to children under five years of age, I have noted no ill-effects which could be attributed to antitoxin, and so far have had no deaths from this disease."

Doses of 50,000 units are not uncommon; indeed they are generally recommended in the very severe types. State Commissioner Dixon, of Pennsylvania, records dosages of 53,000, 57,000, 63,000, 68,000, and 117,000 units. Schorer, in his "Vaccine and Serum Therapy," says that "when the disease comes under observation late or is very severe, 20,000 to 100,000 units may be necessary. . . . The age of the patient, unless very young, should have no influence upon the amount of antitoxin injected." Schorer also says that streptococci are very important and are responsible for many of the fatal cases of diphtheria. Such cases should receive both diphtheria antitoxin and anti-streptococcus serum. This illustrates, in another way, the value of the laboratory aids to diagnosis, which should be neglected in no case.

While we all know the essential importance of the biologic treatment, I fear that many of us lose sight of the necessity for using indicated drugs. Dr. Secrest was absolutely right in persisting in the use of the iodized calcium, and calcium sulphide, intestinal eliminants, local antiseptics for the throat and nose, and suitable drugs for the maintenance of the integrity of the heart and kidneys are all of vital importance. The doctor should watch his patient "like a hawk" and be prepared for any emergency. I know that many deaths from diphtheria are due to the fact that so many physicians consider antitoxin a specific, and therefore neglect everything else.—Ed.]

#### DILATATION OF THE PREPUCE

I have received a large number of letters from doctors inquiring for details about dilating the prepuce in place of circumcision, as set forth in my article in the April number of this journal, which, with your permission, I will answer all collectively in this place.

It seems that the human animal is defective in its sexual organs, and that very little progress in managing these troubles has been made since the time Moses laid down those wonderful sanitary regulations. In all other animals the young are capable of taking care

of themselves as soon as they are born, and they look after and clean their own sexual organs. On the other hand, the human, at birth, is entirely dependent upon the parents for everything, and the latter, through a false sense of modesty, shun touching the child's sexual organs, taking care of and cleaning every part of the male babe except its penis. That organ is left to itself—and what a lot of misery this ignorant neglect is causing. The defect, therefore, is more apparent than real.

The foreskin of every newborn male child should be retracted, forcibly, by the accoucheur, at the babe's first dressing, and the nurse or mother be instructed to do the same thing every day, cleaning and oiling the organ before returning the prepuce. If this is done, and carried out for two or three weeks, the child will have a perfectly normal penis, and the foreskin will be loose and retract easily afterward. Where the foreskin can not be retracted without using considerable force, then dilate it with a small long-jawed artery forceps.

Let me impress on your minds this fact, that systematic care of the little fellow's organ from birth will do away entirely with the necessity of anything so barbarous and brutal as Mosaic circumcision.

In older children that come to you with the defect fixed, through neglect, dilate in the same way, using a larger forceps, according to conditions. Do the dilating gradually. If the child is old enough, instruct it to retract the foreskin and gently clean the glans with soft gauze and warm soapsuds every day. The continued retractions will dilate the foreskin so that it will soon become normal. In the few instances where the foreskin is fibrous and will not dilate, slit it open on the upper aspect. But it is not necessary to carry the cut clear back to the corona; cut only as far back as the narrowed part goes, usually about half the depth of the glans being far enough to allow the foreskin to be retracted easily. W. A. MARNER.

Miles, Ia.

#### MORE PRAISE. ACTIVE-PRINCIPLE "BOOST"

When I just had been graduated it appeared to me that our journals were too full of articles from the pens of men upon whom the sobriquet of "Doc" weighed so heavily that they felt constrained to air their vast knowledge for the benefit of more modest, though, perhaps, more brilliant men. Grow-

ing older, it did not seem to occur to me that I myself might have had an experience or had found something that my confrères might like to know of. I continued to scan that and this journal as it came to hand, now and then finding scattered among the juvenile efforts a gem from one of the masters.

Then there came a time when a little pamphlet would, at intervals, find its way to my desk, and I found myself actually *reading it all the way through*. It had the size and appearance externally of a medical journal that might have been plucked green, but on the inside of its covers it seemed to be quite ripe, indeed. This literary product was called *THE ALKALOIDAL CLINIC*. Then for a space I missed it and wondered what had become of it—"what had gone with it," in the Southerners' idiom. And then it dawned upon me that in *CLINICAL MEDICINE* I beheld the full-fledged debutante who was my little girl acquaintance of the yesterday.

Now, frankly, Doctor Abbott, an article from my pen does seem out of place in your journal among the kind that usually appear in its pages. I have often wondered how so many of those articles flowed so smoothly as to remind one of the placid streams revealing their depth by their very placidity. I hope you can keep it so, either by discrimination, or by a little regeneration, as it were, between the pen and the printers' type.

In whatever way it happens, though, the *CLINIC*'s doctrine of the active principles rings true, and it cannot be impressed upon the members of our profession too strongly and too persistently. Just hammer away at it!

And now I am going to give you a comparison that will illustrate the difference between crude medicine and the alkaloids—an experience in my personal practice.

Some years ago I found a condition in the country something like this: An infant, maybe six or eight or ten miles away, would be taken with high fever and convulsions. Its parents would start a messenger on a mule to summon a doctor. The mule would amble off in the characteristic half-hammered way, while the distracted parents wondered whether the slow beast would ever get there; and whether the doctor were home; and if so whether he would ever get to the patient; or whether the sick child could live till the doctor came; or whether the doctor might not be sick and too "weak" to come.

That is crude medicine, perhaps inert.

Then I had constructed about 25 miles of rural telephone lines of my own, the first

put up by a physician in my section (or in any section that I know of) and installed phones at short intervals.

Now suppose a case similar to the one recounted. The father now steps to the telephone and rings.

"Hello! Is that Doctor Young?"

"Yes, this is the doctor."

"Well, doctor, please come as quickly as you can; I am afraid my baby may not be living when you get here."

"All right, I shall be off at once." (Or perhaps the "Better-half" was on duty, and, knowing at any hour just where to locate me, possibly could pick me up on the road, sometimes nearby the house of the sick infant.)

What relief! They know now he is not too "weak" to come, in fact, they know he is coming, and in one-third the time at least; and they just hang up the receiver and walk to the front door and say "Now watch him come." *That is your active principle.*

We can give our crude drugs and then hope that the result will come. And sometimes it does come, but sometimes it does not, because the drug is inert.

But we can give the alkaloids and *know* the physical effect will follow, provided vitality is not too far gone.

So, if there are any on my enclosed list of doctors' names who are still using the mule-method, just fire a sample copy at them, and make "live wires" of them.

E. B. YOUNG.

Baker, La.

¶ [When we get a beautiful letter like this we can rarely resist the temptation to print it—not altogether because the kindly praise has tightened our hat band, but rather because we hope the experience of one thoughtful physician may stimulate others. to "think on these things." We have sent copies of *CLINICAL MEDICINE* to the list supplied by Dr. Young—and, by the way, why won't other readers help stimulate interest in *our* journal by sending us similar lists and speaking and writing about the *CLINIC* to their medical friends.—Ed.]

#### COMMENTS ON DR. FRENCH'S ARTICLE: PNEUMONIA

Already I have read my May number of *CLINICAL MEDICINE* and have found it full of interesting and useful articles.

The article which caused me the most thought was that by Dr. J. M. French (p. 409) on the "Active-Principle Treatment of Pneu-

monia." I agree fully with Doctor French as to the value of good remedies in the treatment of pneumonia, but wish to offer a few reflections and criticisms.

Three things to be considered in the treatment are named by him, namely: the first is summed up in the word individualization; the second is, special symptomatology; and the third, the selection of the indicated remedies, instead of routine remedies for the diagnosed affection, i. e., giving purely empirically chosen remedies, as our predecessors were wont to use.

Now, that sounds like the teachings of a Homeopath, does it not? If it is, it is just as good, and, if Homeopathy taught it to us, let us give that school credit for so much. You will pardon me if now I jump to the question of treatment. Under this head Dr. French writes as follows:

"There is one other active principle which I have learned to use in those cases of pneumonia which are complicated with pleurisy, as shown by a sharp 'catching' pain in one or the other side when breathing. This is bryonia, a glucoside derived from *bryonia alba*, a remedy of which you probably know very little. It is a remedy for serous membranes, and is especially indicated in pneumonia when there is felt a sharp, cutting or stabbing pain in the side, made worse by motion."

But, why doesn't Dr. French give the Homeopaths credit for bryonia? The symptoms mentioned by him will, every one, be produced in the healthy individual if bryonia is taken in physiological doses; however, physiological doses of the drug will not cure those symptoms, but given in smaller dosage, not necessarily the homeopathic C. M. will do so. He does not state the dosage he employs, but quite likely it is the 1-64 grain standard granule—not an immense dose, but enough.

I sincerely recommend its use by all physicians, and am sure it will prove the friend in need. Do not pass it by because it is a sheet-anchor of Homeopathy, but rather make it your own anchor to be relied upon should it prove itself strong enough upon honest trial.

I believe, too, that the heart and nervous system should be guarded from the start of the disease, just as aconite should be given to guard the pericardium in rheumatic fever. (Ever heard of it?) This reminds me of a great inconsistency in the practice of the average Homeopath. These men will decry the use of stimulants as protection in pneu-

monia, yet they recommend aconite as a routine to guard the heart in rheumatic fever.

Now, there is only one more point I wish to make. Pneumonia is an acknowledged germ-disease. We all are "threatened with pneumonia." Then, why will the physician tell the "family" that the patient was "threatened with pneumonia," when he has really aborted pneumonia by prompt treatment?

WM. RAE YOUNG.

Shelbyville, (R. F. D. 1) Mich.

[Thank you, Doctor, for these suggestions. We owe many things to the Eclectics and Homeopaths, and we are all willing to give them proper credit I am sure. The real physician cares little about the source of his drug; what interests him most is its value in treating his patients. Bryonia is a valuable remedy and should be used much more than it is in pneumonia, pleurisy or whenever there are sharp, cutting pains in the side, made worse by motion.—Ed.]

#### ARE YOU GOING TO GETTYSBURG?

Doubtless among the readers of CLINICAL MEDICINE there are a good many veterans of the Civil War who will go to Gettysburg to attend the reunion of the veterans of that great battle, to be held from June 28 to July 10. We want to urge any of those who may be present to make the acquaintance of our friend and coworker, Dr. Richard Slee, of the Slee Laboratories. Dr. Slee is a lieutenant in the Medical Reserve Corps of the United States Army and has been ordered to active service at the Provisional Field Hospital, in Gettysburg, during the reunion. He will be glad to see any of our friends, old or new.

#### BATHS IN FEVERS

It was a surprise to me to read an article, in an old number of CLINICAL MEDICINE, from the point of "clean up, keep clean" practice. Baths in fevers! I strenuously object to anything bringing discomfort to a patient when there is the congenial warm epsom sponge-bath, so refreshing to all fever patients, who will exclaim, "How good I feel." You don't hear that when the cold bath is given. It is a terror to all who have to submit to it. I have a letter from my granddaughter, in Denver, who was treated for about two months with cold baths for typhoid, in which she writes that she had a very kind doctor who did not give nasty medicines to take, "but, oh, the cold baths"! If properly

treated she should have been well in a week, and without these chilly baths.

As to intestinal hemorrhage, we don't have it in properly treated cases. In the latter part of that article you say that these baths are rarely necessary. I say *never*.

In regard to the bowels, it is never safe to take a patient's word about good condition. I have just treated a case where the patient insisted the bowels were right. The tongue was very slightly coated. After two days' treating with aconitine, veratrine, and intestinal antiseptics, and still the temperature going to 103.8° F., I decided to do something at night, so gave 7 anticonstipation granules and a warm epsom sponge-bath, followed in the morning by saline laxative internally. By 9 a. m. there was a copious black fecal discharge, enough to cause fever every time. Then I gave an epsom-salt enema, which made house-cleaning complete. Result, no more fever. This should have been done at first, and would have saved two days of fever.

There is plenty of good, practical, common sense to put in your journal without even alluding to cold baths, only to say "don't." They are uncongenial and unnecessary.

GEO. ROBERTS.

Lincoln, Va.

[It seems to me Dr. Roberts is just a trifle too emphatic in his objection to cold baths, especially in typhoid fever. In rugged patients, who react well, the results from the Brand treatment are certainly excellent; but the baths must be given right, by trained nurses, with friction, and with proper facilities, such as are rarely obtainable in the patient's home. The general practitioner will usually get best results from sponge-baths, and the epsom-salt rub advocated by Dr. Roberts is certainly very refreshing, while the medication suggested, particularly the "clean out," is mighty good. Our apologies to Dr. Roberts for the delay in printing his letter.—Ed.]

#### TWO UNUSUAL SURGICAL CASES—RECTAL TEAR IN A MAN, PERINEAL TRAUMATISM IN A WOMAN

As the report of remarkable cases is always welcomed by your valuable journal (one of, if not the most valuable one, published for the profession as a whole), for the interest of its readers I take pleasure in writing you of the two interesting cases from my practice.

In July, 1902, I was called in consultation to see a young farmer, 20 years old, robust,

well built, and who always had been healthy. The following information was given:

After a shower of rain the man got on his pony, bare back, put his shovel over his shoulder and rode off to field to open up the ditches. Getting to his destination, he pitched his spade-like shovel, as is usual, down to the side of his horse, the blade sticking in the ground and the handle standing upright. This act made the horse shy and it reared, throwing off the rider, who landed, in a sitting posture, on the top end of the upright handle of the shovel. The handle, passing through the clothes, entered his anus, went straight up the rectum to the sigmoid, and there pierced the gut, making an opening large enough to admit two fingers easily, and entered the abdominal cavity, just how far we do not know, but from the appearance of the shovel-handle it was at least twelve inches beyond the anus. There was no traumatism where the handle entered the anus and but very little hemorrhage from the wound.

Had I seen the victim immediately after the accident, I should have urged laparotomy; but I was called five hours after it happened.

I found the patient with an anxious face, jaundiced, hiccoughing, cold perspiration, rapid pulse, temperature of 101° F., very tympanitic, and suffering severe pain; general peritonitis was marked. Operation and moving the patient (five miles in the country) being out of the question, I used the morphine splint, giving two doses of morphine, of 1-4 grain each, hypodermatically, within one hour. Then I made a digital examination, finding the condition as described. I advised quiet, horizontal position, liquid diet, catheterization, and the free use of morphine to control pain.

The patient did splendidly for twelve hours, then began suffering, the doctor in charge having failed to repeat the morphine. I was called again thirty-six hours later and found everything as at my first visit, if not worse. I advised the same line of treatment as on my first visit, this time the morphine being continued as suggested. Today that man, seemingly hopeless at the time, the victim of violent traumatic peritonitis and large bowel perforation, is alive and in perfect health. Nothing unusual occurred during convalescence.

The other case is of more interest, I think. It is that of a stout and healthy young Frenchman of 32 years who had just married a young woman of French descent but born in Louisiana, 24 years of age, of medium size,

and healthy. About 4 o'clock, a. m., the night of the wedding, I was called to come hurriedly to see the bride, the husband saying he had "busted" the hymen and that she was bleeding to death. When, after a drive of three miles, I got there, I found the woman in a state of shock, the bed saturated with blood.

Examination revealed a wound midway between the anus and vagina, ragged, and large enough to admit two fingers and opening into the vagina after going through the perineum. The wound was of such a nature that I had to pack and drain. Recovery was uneventful, and the patient is now the mother of five or six children.

I questioned the husband, and he assured me he had done it with his penis, which, by the way, was unusually large—but I do not believe it was capable of making such a wound through the natural skin; I do not believe he could even gouge it with his fingers. His wife says she noticed nothing and thought she was going through the natural course of events. This last case occurred about two years ago.

F. F. YOUNG.

Covington, La.

#### MEXICAN PEOPLE AND MEXICAN PROBLEMS

[Continued from Page 534, June Issue.]

All people not fully civilized admire force. The strongest, the bravest, the most brutal among them is destined to be their chief, to rule and to lead them. Justice, while innate in all human beings, is as yet only embryonic; and without shape in their consciences, its form is too vague to be understood or find an expression. Might to them is everything, and, under the eternal law of the survival of the fittest, the weak are trampled under. And the weak, not being satisfied with the ruthless methods of his stronger brother, makes use of duplicity and craftiness as weapons of self-defense, and later on uses them as arms of offense as well, as ambition grows within him. And here we have the first expression of "diplomacy."

The inheritance of this elemental trait has not been extirpated, and perhaps never will be, as even the biggest nations in their dealings with their neighbors have recourse to duplicity, and, if the neighbor be weak, might instead of right is the means to persuade them that the wishes of the strongest are to be considered.

And the Mexicans, in their evolution toward civilization, are no exemption to this fundamental law. They want the strongest among them to rule them—men that are ruthless and unscrupulous and at the same time just. Such a man was Porfirio Diaz. Diaz knew his people, and he knew how to handle them. More, he knew when it was time for a man to die; and by means of the timely disappearance of a few he saved uncounted thousands from being slaughtered, and at the same time made his country prosperous and respected.

What will you? The people living in constant strife and bloodshed for more than sixty years had forgotten the art of peace. Perhaps, too, a lawless existence of two generations, and more, gave birth to new—or, rather, old—ideals of happiness, and man went back to savagery. And now, once more, today, as yesterday, the average Mexican is never more happy than when astride a good horse, under him a silver-mounted and gaudy-strapped saddle, and equipped with a good rifle, a keen machete, a pack of cards, and a bottle well filled with aguardiente. Fields and woods furnish an abundance of wild game and fruits, so why not be lazy? Of a vivid imagination, he is exceedingly romantic; and romance combined with laziness conduce, naturally, to outlawry.

Remember, these warfaring people are the sons of the chivalrous Spaniards, and, together with their virtues, they have inherited the vices of the conquistadores. But, they are also descendants of the different tribes of aborigines that peopled Mexico at the time of conquest, some of them wild and free, tilling the ground or roaming the hills and mountains as hunters and nomads; some of them the most abject of slaves to a brutal and bloody religion and a proud and domineering aristocracy. And all these various and distinct races left their multiple traits on the character of their descendants.

In the presence of so many different contending aspirations, of so many different languages even, of ideals antagonistic to each other, what single governmental constitution could be formulated that would fit the needs of Mexico with its overwhelming percentage of ignorant citizenry, people who are easily swayed by the ambitious, half-educated would-be leaders constantly arising from among their own ranks and caste.

And right here is one of the troubles not understood by outsiders. I have traveled all over Mexico during the last twenty-five years, have sojourned to a greater or less ex-



ment in most of the states, and have assimilated myself with the people, have taken part in their pleasures and rejoicings and have been one with them in their sorrows; I speak their language well enough to be mistaken many a time for a real Mexican; I understand their faults and appreciate their virtues—but let me tell you, the people of this country are divided among themselves by different sentiments and ideals just as much as are the Greeks, the Turks, the Slavs, and the Teutonic and Latin races of Europe.

Such is the Mexican of today, a complex character, not easily understood. He is like a boy who would like to be trusting, but who, on account of former mistakes, has become exceedingly suspicious and by his own mistrust is led himself to do the very wrong from which he is trying to escape. Generous to the extreme, his purse is always open to a friend; and a graphic way to express his desire to serve and be hospitable to a stranger, is, to say to him, "My house is yours." They can be very grateful, indeed, and, as a rule, for instance, the doctor is well paid if he understands his business—sometimes I used to get from a grateful patient, in addition to my fee, a fine horse and saddle, or some other valuable token of esteem. But, also, they can be terribly ungrateful, the very essence of churlishness and base ingratitude.

Extremely unreliable, though, as they are, it is sometimes a hard matter to enter into business transactions with them, for whenever the Mexican thinks it profits him so to do he will go back on his sacred word. Yet, their fathers before them used to be proud of keeping their promises, and they had an old custom according to which a man would pull out a hair of his beard as a pledge of faithfulness.

The lower class, which all over the world is the backbone of a nation, the producers of the necessities of life and the wealth of the people, in Mexico are the greatest hindrance to her progress. No matter where they are born or to what race they belong, in one thing they are of one mind—they shirk work. There is nothing that the Mexican is as afraid of as work. As formerly these people were peons, that is, men who virtually had sold themselves for money borrowed in exchange for work, the custom prevailed for a long time to loan them money for work to be done. But as eventually the laborers discovered that, under the law, they could not be forced to pay, they would borrow money and refuse to pay it back. Then wages were raised; but, nevertheless, the peon does not work. Quite

recently, an instance came to my notice which will illustrate the labor-question to a T.

A master carpenter hired an "official" [journeyman artisan] to work for him. This man demanded \$1.50 a day and was hired at that wage. He was directed to make a bunch of ax-handles, which are sold at 25 cents at retail. He turned out three as a day's work, and demanded his full day's wage of \$1.50. This man, who used to earn 25 cents a day, though he demands better wages, in no way has increased his capacity to earn the pay.

To explain the people more fully, I will refer to one instance of the rule of the strong hand. In the Huasteca Potosina, a beautifully rich country, there is a town named Huehuetlan, the poorest favored by nature, yet, the best-built town in the whole Huasteca. There lives an old man by the name of Saloman Morales, to whom the town owes its prosperity. He was a poor man, belonging to the peon class, a Mestizo with perhaps more of the Indian than white blood in his veins. A hard worker, he slowly rose in his community, until, becoming owner of most of the lands around the town, he became its cacique (chief or arbiter). And he certainly ruled with an iron hand. He would not allow drunkards or gamblers in the community—they either had to work or leave. It was but natural that the man should meet a great deal of opposition, but his enemies never lived long enough to do him harm. It would happen that a man was killed in a brawl. Some other time a man was robbed and murdered on the highway; still another was killed by unknown persons—for revenge, it was rumored; then, again, someone's body decomposing was found hanging from the limb of a tree; and so the story went on. Altogether, good Don Salomon has confessed to twenty-seven murders; not, indeed, committed by himself, but through his agencies. The following narrative will illustrate the man as he really was.

One day, when grinding sugar-cane, the wife of one of his peons brought the dinner to her husband. She carried her little baby with her, and its crying annoyed Don Salomon, who, with violent language, ordered its mother to stop the crying of the brat. Her efforts being unavailing, Don Salomon, in a rage, tore the babe out of her arms and threw it into the evaporating-kettle full of boiling molasses. About twenty men, friends and companions of the father, were present at the deed, and not one uttered a word in protest or opposition.

You and I, we all loathe a brute such as this. But what must be your feeling toward the people who allowed this monster to commit such a heinous crime without punishing him on the spot? Don Salomon himself is an arrant coward, he will go to sleep at night, ostentatiously, in his costly brass bed, but as soon as it grows dark he will disappear, no one knows where to. And such a being made that town prosperous! But the people are not grateful for their prosperity, for they hate and fear him. What kind of people are they that will not be decent even for their own good unless forced to be so by such barbarous means?

Around Huehuetlan, the poorest part of the Huasteca, you find rich cornfields and fruit- and coffee-plantations, because the people were made to work. In all the rest of the Huasteca, which is perhaps one of the richest districts in the country, the owners of the land had to content themselves with sowing grass and thus spoil their lands forever, for that grass can never be eradicated. And this, just because the native people do not want to work. Lands that can easily be made to produce from \$500 and upward, a year, per acre, in this manner yields only from \$20.00 to \$25.00—and the people are satisfied to live in misery and poverty, if only they do not have to work. They will steal, though, from their neighbors who do work, nor do they resent or think it a dishonor to be called thieves.

Here is another phase of the character of the noble Mexican people. Some years ago there lived in the City of Mexico a German, a machinist and director of some flour-mills or something of the sort. He had a very nice family, one of them a little girl, twelve years old. The father had been sent to Germany by his Company to make a study of some new kind of machinery they desired to install in their mills. As children will, the girl was greatly taken by the glitter and spangle of the bullfighters; and Gaona, just then the latest hero of the bullring, seemed to her the greatest man on earth, although she had never seen him.

Friends of the bullfighter, knowing the child's predilection, one day took advantage of the fact that her father was absent and her mother in the hospital down with typhoid fever, to inveigle her to see a dance given in honor to the hero Gaona. What happened afterwards is not definitely known, but the girl committed suicide the next day. The autopsy proved that she had been raped, and from what was allowed to get out it appears

that she was drugged, dragged to some low hotel and kept there all night by the bullfighter.

Only one friend did the dead girl have, a newspaper, the *Imparcial*, published in Mexico. This paper, investigating the case on its own account, compelled the authorities to take an active interest in it; but when the paper was about to close its investigations, with evidence sufficient to convict the man, its offices were stormed by a mob, and the personnel barely escaped being lynched.

Gaona went free, borne out of jail on the shoulders of his admirers. As the little girl's father, though not present, was alive, it was considered that the uncle was not legally qualified to represent her; and when her father did come, he had to prove that he was her father. And by the time the birth-certificates arrived from Saint Louis, Missouri, the legal time was up and the case was thrown out of court. The mother of the little victim, being convalescent, died from the shock when she learned of her little girl's suicide, and so she, too, was unable to represent her. And the result is, on one side a ruined family and sorrowing, lonely father, on the other, a glorified bullfighter with more honors than ever for that deed.

So much for the moral sentiments of Mexicans, which finds ample expression in the rapes committed by rebels on women and on girls of all ages, from eight years up. Rebels even will ask the authorities of the town they menace for girls and young women, without awakening the indignation of the pacific inhabitants of the country unless they be foreigners.

The last few years have abundantly illustrated the fact that there are no notions of morality nor of patriotism. It is true, Mexican papers tell us of how Mexicans will rise as one man against the invaders in case there should be intervention from the north, but they fail to explain why they have not done so in the protection of women and children or to remove all cause for intervention, which really and truly would be patriotic.

It is my opinion that there are more Mexicans who desire intervention than who do not. There are thousands who would like to resume work, and do not care a straw how peace be secured, so long as there be peace. Little do they care for who is president, so long as they have liberty to work. The so-called agrarian question does not bother them, since, after all, that is only a bait. Anyone with sense knows that it is impossible to despoil legitimate owners of

lands for the purpose of dividing them among the poor. That was the promise of Madero, and it is the bait held out now by Vasquez Gomez. President Juarez once distributed public lands to the poor in the state of Oaxaca, with the result that the land was immediately sold for almost nothing, as the new owners were too shiftless to work without the whip.

The great landowners, with few exceptions, are legitimate owners of their properties, as in most instances they bought the lands from towns and villages some thirty or forty years ago. In most instances the people voted and put in as local authorities the men whom the rich landowners wanted, the voters being bribed with a bottle of brandy or a very few dollars; and these authorities sold the lands cheap, but with all requisites of legality, and the indolent and shiftless populace never lifted a voice against these sales. They did not care to work them themselves, and they felt flattered because the rich man or his administrator took notice of them.

Now they were being paid good wages and apparently were satisfied, when Francisco Madero told them that they, by rights, should be the great men and the owners of the soil. Besides, it was wrong for them to pay taxes; that was a robbery of the Porfirio Diaz government and would be abolished when he, Madero, should take the chair. And, preaching anarchy, Madero became president, and the Porfirian edifice, which it took three decades to build, was razed to the ground in less than two years. But no other structure was erected in its place. Any brute or silliest fool can destroy another's work, as has happened here—but to build something better, that is another thing.

Madero is gone, but the work of destruction started by him will not stop yet for a long while. It is entirely too easy for a poor man, if he only be smart, to become a general and retire with lots of money. Then some of the very rich and influential have interest at stake, money to make, ambitions to satisfy. And many of the men now in arms against the Federal Government are personal enemies to the men in power, owing to abuses and atrocities committed by the soldiers during the late campaigns. Murdered relatives, raped women, burned homes, all cry for vengeance; for the soldiers have committed the same crimes that Zapatistas and the other brands of rebels did commit. And as long as the military are in power, those that have personal grudges against them will be in the field, and there are always ambitious men like

the Vasquez Gomez brothers who will fan the flame.

Under such conditions, a legal government is impossible. And Mexico has not had a legal government since the sixties, when Benito Juarez reelected himself to the presidency. Lerdo was not the legitimate president, neither was Porfirio Diaz legitimate. Madero became the legitimate president through illegitimate means. Huerta became president through a coup, and I doubt very much that the next president will be legitimately elected. It is the law of the strongest to get the seat, and if he is ruthless and unscrupulous enough he may hold it.

But, if capital has sufficient protection and sway, then peace will be assured. Only capital which loses through revolutions, only capital which encourages work, capital which is munificent to reward peaceful efforts to progress, only capital can save this country from anarchy and complete ruin. But not the capital which fomented revolutions, not the capital which grows and fattens on widows' tears and starving-orphans' cries. No, we do not want that kind of capital to come here.

Let capital come here to work the mines, to till the soil, erect saw-mills, harness the waterpowers to move electric plants, and induce the government that may exist to teach the people that there are only two factors that conduce to human happiness and make nations great and powerful. These two factors are PEACE and WORK.

A. R. HOLLMANN.

Apatzingan, Mich., Mex.

(To be Continued.)

#### HEREDITY AND TUBERCULOSIS

A recent lecture upon tuberculosis, heredity, and environment, by Prof. Karl Pearson, F. R. S., Galton Professor of Eugenics at the University of London (now issued in pamphlet form by Dulau & Co., Ltd., 37 Soho Square, W. London. Price, 1 shilling), deserves to be brought to the special notice of the medical profession, and more particularly that portion concerned with sanatorium and dispensary treatment of tuberculosis.

In the introductory paragraph of his lecture, Pearson indicates what constitutes the necessary preliminary preliminary step in an adequate investigation of tuberculosis, namely, a scientific inquiry into the relative importance of (1) the hereditary factor; (2) the environmental factor; (3) the liability to infection. Such complete study has not yet anywhere been made; and the hereditary

factor in actual practice is almost universally ignored.

On the basis of careful statistical studies of data relative to tuberculosis, Pearson has consistently urged for more than a decade the prime importance of the factor of a hereditary constitutional predisposition or susceptibility (or lack of resistance) to tubercle infection. Pearson stands almost alone among scientific students of tuberculosis in cogently and fearlessly using this point; yet, a careful reading of his papers cannot help but carry conviction, perhaps rightly of varying degree, to any, it seems to me, but the hopelessly biased.

Pearson analyzes two pedigrees collected by Klebs. Among 16 cases of marriage of phthisical individuals, there are only 2 where *both*, husband and wife, were phthisical. In fact, 62 percent of the tuberculous members lived to adult life, of whom 45 percent married. Of these, only 12.5 percent had diseased mates, but 79 percent of their offspring were tuberculous.

If the phthisis in the children is owing in the first place to infection from parents or to a common environment, we should anticipate that more than one-eighth of the mates of phthisical individuals would themselves be phthisical. "This in Germany is very nearly the number of phthisical persons occurring in the population at large. . . . It is less easy to believe that the infection-factor here is the principal source of the heavy mortality, as the members of the stock have lived in widely separated homes and under very divers conditions, flying from the family curse." (P. 4.) A further analysis of these data gives, among others, this strikingly improbable result: the father is twice as dangerous to the child, if the source be infection, as the husband is to the wife.

Hamburges and Monti, following the cutaneous test by an injectional one, have found 94 percent of the children of Vienna, between the ages of 11 and 14, to be tuberculous; the great proportion, however, recover. But the existence of this enormous number of infected children seems to demonstrate ubiquity of infection. In some, the disease develops to full intensity; in others an immunity is established.

Infection from parents cannot be the chief source of the spread of the disease among children. We are constrained to hold that "certain stocks are relatively more immune than others." Pearson's most striking conclusion, based upon apparently wholly adequate data, is, that "during the years of

tubercle bacillus, of sanatoria, and of the fight against tuberculosis the rate of fall in the death rate from phthisis, instead of being accelerated, has been retarded." (p. 28.)

Pearson deprecated the fact that "hardly a single sanatorium in this country publishes a report from which it is possible to extract information of scientific value as to their efficacy." This is equally true of other countries. In the interests of scientific accuracy and an effective procedure in the warfare against tuberculosis, this condition should speedily be altered.

He finds no evidence to show "that sanatoria have in any way prolonged the lives of consumptives in a marked or substantial manner." (P. 35.) The percentage of "cured" is swelled by incipient cases where the victims in presanatorium days (and no less now) recovered spontaneously. Examination of the records of English and German sanatoria shows: "In one case, of the discharged patients, 57 percent are actually dead three and one-half years after leaving; in the other cases, 55.6 percent are dead or unfit for work in four years after leaving." (P. 36.) "If . . . the constitutional factor is as important as, nay, is more important than, the infection-factor, then from the eugenic standpoint a grave responsibility rests upon those who assert that infection is everything, and that stocks with hereditary tuberculosis diathesis have no real existence." (p. 43.)

Pearson further advises as follows: "Admit that sanatorium treatment is purely experimental, admit that dispensaries are another experiment, and that tuberculin is another and perhaps more hazardous one, and there is nothing more to be said than the words: 'Experiment, but record your observations in such a manner that the trained mind can ultimately measure their bearing on human welfare.'" (P. 44.)

The pedigrees of pathologic states filed at the Galton Eugenics Laboratory are interpreted to show that "the bulk of the tuberculous belong to stocks which we want *ab initio* to discourage. Everything which tends to check the multiplication of the unfit, to emphasize the fertility of the physically and mentally healthy will *pro tanto* aid nature's method in reducing the phthisical death rate. That is what the eugenist proclaims as the 'better thing to do'; and 1,500,000 pounds spent in *encouraging healthy parentage would do more than the establishment of a sanatorium in every township.*" (Italics my own.)

H. E. JORDAN.

Charlottesville, Va.

[Dr. Jordan is chairman of the Eugenics Section of the American Association for the Study and Prevention of Infant Mortality, and holds a chair in the University of Virginia. We shall be greatly pleased to hear from him again. Every physician should be interested in the subject of eugenics.—ED.]

#### HELP FROM ALL MEN AND ALL SCHOOLS

When at times I must economize by cutting down the number of medical journals taken, yours is the last one to stay on the list. Why? Because you are not narrow enough to be tied down to any one system of practice, but give all of them a chance to show up their best and most successful points.

The practice you have of collecting therapeutic notes from practitioners on the field, makes your journal, in my mind, one of matchless value. This, with occasional contributions from various doctors of any and every school, gives me ideas the application of which enables me to do things the other fellow says are impossible, both in acute and chronic cases.

First I studied for my own health's sake, but since getting interested in the subject I am studying broadly, so that I can do "impossible" things, according to the other fellow's ideas.

Almost anybody can do the common things you know, but why stop at that when there are so many interesting points along the line the search for a treatment or treatments that shall cut short acute attacks, alleviate chronic troubles, and relieve the "incurable."

CHESTER W. HARPER.

El Campo, Tex.

[It is surprising how often the "impossible" may be accomplished when we go at it right. Fact is, many things *seem* impossible because we do not understand them fully.—ED.]

#### DOCTORS' PUBLICITY AND LEGISLATION. THERAPEUTIC HINTS

In Dr. Blanchard's article in the April number of this journal I wish to indorse what he said in regard to doctors and publicity. The ethics of our noble profession are all right; but all is not fair in practice, as one, by virtue of his prominence, can take advantage of the lesser lights and thus secure advertising the latter could not get if they ran full page advertisements.

To illustrate: A struggling young doctor was driven to his wits' end to make a living for his family. Thinking to attract some business, he had business-cards printed on which he claimed to be able to cure a number of stated chronic diseases. The state board of health called him before them for explanation. The young doctor had prepared himself with clippings from the newspapers regarding wonderful operations the president and other members of the board had performed. After reading them, he asked whether his way was any worse than this kind of so-called ethical advertising. The board called off the case, and one of the members gave the young man a place in a contract-practice.

No one has fought quackery more than I have. While acting as editor of a small weekly newspaper I wrote a number of articles explaining the patent-medicine evil and all forms of quackery; I also bared the facts in regard to osteopathy, chiropractic, Christian Science, and all the other fakes.

Now, with all my radical views along these lines, I do feel that, if we are to get a chance with the public at all, we shall have to do something more than joining churches, lodges, and the like, to get business. It certainly will do much good to send out, from time to time, literature that is helpful to the people. At the same time, in a modest way, with no ridiculous claims, we can state what we are doing, and in that manner bid for business.

There is no hope in legislative enactments to put a stop to the fakers and patent-medicine evil. The public has been reading the false claims of the fakers so long that they take those statements as authority, consequently doubting what a reputable physician among them tells them.

All of us are after business, and many who hold up their hands in horror at advertising will cut fees below yours to get the business. Which is the more honest? Think it over, then express yourselves; roast my views, if you wish, since I am an ethical physician, member of county and state societies. I have had it "put over me" by these men, who do anything to get the business except honest above-board advertising.

Now, to change the subject. What trouble, I should like to know, have you had in examining patients who wear union-suits? It is necessary to strip them naked if you wish to get to the abdomen or chest. To me, they are an abomination.

In rheumatism, I have had excellent results with the rheumatism phylacogen. Pain



is relieved marvelously quickly and recovery is very rapid under its use, the main thing noted being a very bad stiffening of the affected muscles afterward and some soreness; after this leaves the patient is entirely well. What has been your experience? I wish to know all possible about the treatment, inasmuch as we have more rheumatism here in Montana than anything else.

In goiter, I find echinacea, calcidin, ergotin, with iodine locally, almost always does the work. At present I am trying quinine hydrobromide in a case on hand. There are a large number of goitrous subjects in this mountainous country. Does anybody really know the cause of this disease? The best authorities, I believe, are in doubt about it.

Whenever I have to do circumcision I choose the dorsal incision. My results are better than by any other method. Stretching, I believe, is practically worthless.

Just now, it seems, all the talk is about the wonderful Friedmann cure for tuberculosis; but out here, in this healthy country, we do not need a serum cure, for the mountain-ozone is so abundant that, with just a little care, victims who have been given up in the East recover here. I have in mind a number of patients who came here in the latter stages and recovered completely.

Here, in the Gallatin Valley, we have a number of health- and pleasure-resorts that are well patronized, but are little known to people in the East or South. The climate at these places is ideal, being warm in daytime, but cool nights; from April or May to Christmas. The altitude is from 5000 to 8000 feet, while the scenery and fishing is better than at any place in the world. The resorts are all well managed, and board is very reasonable; the fare being of the best. It seems strange that more doctors do not send their tuberculosis patients here, as we never have the hot, humid weather that prevails in New Mexico and Arizona. Anyone desiring information in regard to these resorts can get it by addressing me, enclosing stamp.

F. E. McCANN.

Salesville, Mont.

[Brethren, beware this lure of professional advertising, open, insidious, or "semi" ethical. No telling where it will lead you.—Ed.]

#### THE QUALITY OF COURAGE—AND A CHLOROFORMED INDIAN

In 1887 I was superintendent of the Territorial Board of Health of Dakota, and

because I was the "big medicine-man" of the Territory I was sent for by Gray Wolf, a chief of the Sioux, to come up into the "Bad Lands" and see what I could do for one of the "bucks" who had been shot through the right knee.

Taking my emergency-case with me, I went as far as Mandan by rail, on the Northern Pacific, and from there on horseback to the Indian village of my destination. I found my patient, a young buck of about twenty-four years of age, suffering intensely, but stoically, as an Indian always does. The bullet (a "44") had gone through the knee-joint from right to left, badly shattering the ends of both bones. I had no difficulty in explaining to the chiefs the nature of the operation I intended doing, all of them understanding enough English to comprehend my explanation, but they all objected to the use of an anesthetic. However, I insisted, and (rashly) assured them there was no danger whatever—thereby proving myself a false prophet.

With a blanket spread on the ground for an operating-table, water from the "Little Muddy" for cleansing purposes, and without assistance of any kind, I proceeded to perform a bloodless resection of the knee-joint. The anesthetic used was the old A C E mixture, and by the time my patient was "ready" I had learned that anesthetics do not act upon an aboriginal the same as they do on a white man, and I was "up against it."

The moment he was under the anesthetic he was, to all outward appearance, dead. Still, he had a fairly good pulse, and so I proceeded with the operation as rapidly as possible. But when I *cut* into the flesh and he did not bleed, Gray Wolf jumped to his feet, gesticulating wildly, and in vehement language informed me that "when you cut a live man he bleeds, and if he doesn't bleed he is dead."

Talking against time, working as rapidly as I could, watching my subject closely to see that he still *was alive*, I kept back the savage horde, and finally finished that operation, with the perspiration running down my back and cold chills running up that same route, and the prospect of a sudden and violent exit on my part staring me in the face. For, with a few words, spoken in the Sioux tongue, Gray Wolf had converted that heretofore peaceful glade into a pandemonium of noise and excitement; and I finished my operation with a howling, shrieking band of savages dancing a war-dance within ten feet of me, and old Gray Wolf telling me that if

I didn't wake the man up I surely would be put to death. [Wouldn't this have been a dandy case for H-M-C?—Ed.]

They say that from the time a man starts to fall out of bed to the time when he strikes the floor he can review his whole life. I do not know anything about *that*, but I *do* know that all through that operation, with death hovering around the patient as well as the operator, old General Sibley's prayer kept running through my mind.

Away back in the sixties, General Sibley was ordered by the War Department to take about three hundred soldiers and guard a herd of cattle from down near Fort Ridgely, in Minnesota, up to Fort Totten, in the Devil's Lake country in Dakota. I was one of the escort. General Sibley was one of the bravest men I ever knew, and was a fighter from the ground up, but on that trip he showed a peculiar streak in his character that reminded me of Napoleon's strange fear of cats. By the time we reached Brown's Valley, near Big Stone Lake, the cattle were very footsore and we stopped there to give them a much-needed rest. The General took a notion to go fishing on the lake, and I, being his orderly, hustled around and found a dugout canoe. The General, myself, and Lieutenant Tilton, all got in and I paddled out on the lake. The water is shallow, and when a squall strikes it, it is lashed into a foaming, white-capped horror. One of those sudden squalls struck us, and, although the General would ride into the thickest of a fight with the *Indians*, and never seem to know that there was any danger, the white-capped waves struck terror into his soul, and this is what he said:

"Lieutenant, I think we are in imminent danger, and someone ought to pray, will you kindly pray for us?" "The danger is imminent enough," said Tilton, "but as our superior officer it seems to me you ought to make the prayer." "All right, boys," said the dear old General; "but the truth is, boys, I never prayed in my life and it will not be much of a prayer. But I never shirk a duty, and if you really think the danger is as imminent as I think it is I will do my best." By this time we were really in danger, and the canoe was nearly half full of water. The General was white with fear and evidently in a regular blue funk. "Please, pray," said Tilton, "and if we ever are to get to dry land you will have to hurry." And this is the prayer, word for word—and if ever a man prayed in earnest, with the sweat of helplessness on his brow and the

fear of death in his soul, that man was General Sibley:

"O LORD GOD! My dear Sir: I have never had the pleasure of addressing you before, and should not trouble you now, but the case seems urgent and if you will only guide us safely to dry land, I promise you, on the honor of a man and a soldier, that you will never catch me out on Big Stone Lake in a damned old dugout again. Very truly yours, H. H. Sibley, Brigadier General, U. S. A."

And God answered his prayer. And, also, my "buck" recovered; but whether this was due to my good surgery, forcible dilation of his sphincter, hypodermics of nitroglycerin, or my fervent prayers, I shall never know. What I do know is, that, if I did not repeat General Sibley's prayer verbatim, I must have said something like it; for I remember promising the Lord that if He would help me out of that scrape I should never again anesthetize a savage in his native wilds without at least a regiment of soldiers as a guard. For, on that day, in June, 1887, there was a time when my patient and I, both, stood an equal chance of going to the "Happy Hunting Grounds" forever.

All of which goes to show that the quality of a man's courage sometimes depends on the kind of danger by which it is put to the test, and that what passes for courage sometimes is fear.

Was it courage that made me "stick to the job" and save that Indian's life? Or was it fear?

GEO. D. SWAINE.

Cleveland, O.

#### THE CITY SURGEON VERSUS THE COUNTRY DOCTOR

Any person possessed of a little mechanical ability and plenty of nerve can become a surgeon. But it takes a philosopher to be a physician. The surgeon never works in the dark—he always sees his work. The physician never works in the light, but must always hunt the hidden cause from the symptoms manifest. And clinical experience at the bedside of the sick—real human folks, not cats and dogs—is the only true instructor.

The surgeon may not diagnose his case until he operates upon the patient. One noted Chicago surgeon was asked by a visiting doctor what he expected to find when he got cut in. The surgeon's reply was, "How in h— do I know until I get in," showing that even the noted ones of those who are always on the "sharp edge" do not care to venture even a conjecture of an internal condition without ocular demonstration. As another

illustration of the helplessness of the ordinary surgeon in internal troubles, I will cite a case I saw in a big Chicago hospital about four years ago.

A young married woman applied to the hospital for treatment because she had no baby after four years of married life. So the surgeon decided to remove one ovary and see if she could not do better with one than with two ovaries. And that surgeon thinks he is some pumpkin in his branch, too. The condition of the husband was not examined. The condition of the os uteri was not examined. In fact, nothing was done except to castrate the poor victim—to make her have babies! No, all that surgeon thought of was to show the onlooking visiting doctors what a slick abdominal operator he was.

Here is another example, also from a Chicago hospital. In this case, the whole vault of the cranium of the individual was removed. It was all very nicely done, and certainly it required lots of nerve. There is no doubt that it was a most brilliant operation, all right, but—the patient died.

Very likely, those who have read thus far have discovered that I am an internist. I believe that Almighty God has placed in nature a remedy for every ill that human flesh is heir to, and that it is the province of the physician to find it. Also, when He made man, He made a nicely balanced piece of mechanism, with nothing to spare, every part needful. "Like a rivet or bolt in a great machine, it's all important though all unseen." I believe in honest conservative surgery, but I do not believe in the people being exploited by that branch of our honorable profession who always have their ever-ready scalpel in hand.

I and my wife (we both are physicians) hid ourselves away to the city by the lakes some four years ago to find something that we might bring back to Kansas with us and use in our practice out here on the prairies of the Sunset country. But after eighteen months' stay in the city and visiting many of the hospitals and postgraduate schools, we found surgeons, surgeons every where, but hardly one doctor represented in any hospital. Many a time, as we were sitting in the clinics and some "victim" was brought in, wife would say: "Why, she doesn't need any operation. I can cure her, sound and well, without operating." Then I would have to talk back: "Keep still. I know she doesn't need the operation, but the surgeon needs the money."

When! When! Oh when! will such things cease? When can we go "back to college"

and bring home something worth while? If it had not been for Dr. Schroth's quiz-course and our trip to Ravenswood, with the gift of Dr. Abbott's little book and the 12-vial case, we should have returned after eighteen months, say, absolutely empty-handed as regards any ideas that we could apply in our midnight vigils, in our fight against the Grim Monster, or to ponder over while we drive the long roads through mud and slush and over the rocks to the bedside of the sick and pain-racked people of our parish.

To be sure, the memory lingers, but it is the memory of an exploited people. The memory of an attempt of some surgeon to engrandize himself before the "Rubes" who come to see the show. There is no memory of an effort to learn or to teach what is wrong with the body-chemistry, which is the foundation of the present pathologic condition, nor the application of a proper therapeutic proposition to correct the same.

There is no memory of anything new in the handling of typhoid fever; but, yes, I was shown a new stitch—I believe they call it a box-stitch—to be used when the pyloric orifice of the stomach had been despoiled and the severed end of the duodenum was stitched to the lower curvature of the stomach.

There is no memory of a real good treatment for pneumonia, but I did see at a private clinic a surgeon dilate a uterus and with the forceps pull out about a three-month fetus, and then curette out the secundines, all at one sitting.

There is no memory of any sure, quick and easy way to diagnose an obscure case of lues, nor of any improved treatment for them. But I did see a very nice vaginal hysterectomy by one of the "big guns," removing a perfectly normal womb, and heard him say: "Now, gentlemen, this is the last \$500 operation for today, and there will be nothing more until next Tuesday."

But enough of it—I am nauseated. When will such things cease? When will commercialism be divorced from honest medical practice? When will the colleges quit over-educating on technicalities and get down to the hard sense of clinical experience?

Only when we of the General Practice tell our experience. I feel like shouting: "Awake! ye monarchs of the plains! Arouse yourselves ye kings of the long, hard road, who fight the death-angel single-handed in some lonely cabin home surrounded by weeping relatives and lighted in your work by the flickering rays of a smoky coal-oil lantern—and then come off more than conqueror."

Tell us how you did it. That is what we want to know. What care we for Mayo's box-stitch? What care we for slick ways of aborting pregnant women? What care we for vaginal hysterectomies of healthy wombs?

We want to know what cured Johnny's colic and what knocked Billy's sore throat the first trip, or what brought the kinks out of Tom Jones's wife. Ye general country practitioners, ye of the hard roads, of hard sense and of the hard-earned dollars, ye are the real highbrows in medicine. And now, if you will just write out and send in some of your rich clinical experience, we can make CLINICAL MEDICINE the best, most down to date postgraduate course that can be furnished us anywhere—and we shall not have to leave home to get the benefit of it, either.

WILL K. JOHNSON.

Gas, Kans.

#### OUR LONDON LETTER

Not being an alienist, I am not going to be betrayed into referring to the doings of the militant suffragettes, but I cannot keep my pen altogether away from one little item of news thereto anent. One doughty suffragette, who had been condemned to eighteen months' imprisonment for setting fire to the pavilion in Kew Gardens, was released after going without any food, absolutely, it is said, for thirty-two days.

A year or so ago Mr. Upton Sinclair, of "Jungle" fame, published a book advocating the fasting-cure, in which he maintained from experience, so he said, that after the first few days the fast may be prolonged almost indefinitely, and that not only without any serious bodily discomfort, but without the fasting individual becoming one whit the worse for it—in fact, deriving great physical benefit. The feat of Miss Olive Wharry (the name of this "martyr for the cause"), if true as related, seems to support Mr. Sinclair's contention, for she actually does not appear to have been any the worse; indeed, it is said, she even was able for the first twenty-nine days to conceal from the prison officials the fact of her being on hunger-strike.

From the rather ingenuous statement of the "prison secretary" of the Women's Social and Political Union, it looks as if "the secret hunger-strike needs a good deal of ingenuity to get rid of one's food—three meals a day. It is generally disposed of during exercise time by being surreptitiously passed to other prisoners." But the ostensible purpose of the

hunger-strike being to terrorize the authorities into releasing the subject thereof, lest a catastrophe ensue and a hornet's nest of misguided sentimentalists be thus brought about the official ears, it is decidedly difficult to conjecture why any attempt at all should be made to conceal the fact of fasting. The explanation limps.

Since of two explanations the most likely should be chosen, one is tempted to suspect that the disposal of the food during the first twenty-nine days was effected in precisely the same manner in which food is usually disposed of, by the hungry—be they just common mortals or militant British suffragettes. So, Mr. Upton Sinclair's theory misses the very effective support of a demonstration under strict test-conditions.

The name of Sir Alfred Lewis Jones, head of the shipping firm of Elder, Dempster & Co., of Liverpool, is held in especial esteem wherever the subject of tropical medicine commands attention. Sir Alfred began life in a very humble way, and entered the firm of Elder, Dempster & Co. in a minor position, raising himself ultimately, by his industry, ability and integrity, to the point of becoming its head. He developed the commercial aspects of the western coast of Africa to an extraordinary degree, and his prescience enabled him to foresee its possibilities when sanitary science should have had its innings there.

Some twenty odd years ago, the writer accompanied Sir Alfred on one of the latter's own ships, to the West Coast, and was electrified by being requested to write a small book about Sierra Leone—"the white man's grave"—as a health-resort. This request he regarded as a joke at first; but to his astonishment found that Sir Alfred was serious. Sierra Leone today is a recuperating station for those dwellers on that coast who are convalescent from the coast-fever.

To Sir Alfred Jones the Liverpool School of Tropical Medicine owes its inception, and it is mainly indebted to him for its support. By his will he has bequeathed to it the sum of \$200,000, with a further sum of like amount when annuities payable out of his estate shall have ceased. The fund is to be devoted to providing a new wing in the Liverpool Royal Infirmary for Sufferers from Tropical Diseases, to erecting new premises in Liverpool for the study of those diseases, and to erecting and equipping a clinical laboratory at Sierra Leone. He further has left to different hospitals sums varying from

\$50,000 down, besides large bequests for other philanthropic objects and religious institutions, and also a sum ultimately amounting to \$400,000 for the creation of a benefit scheme for the employees of his various business concerns; in this manner publicly recognizing his personal obligations. He had a high regard for the medical profession, to many members of which, this writer included, he performed many acts of personal kindness.

The effect of the Insurance Act on hospitals promises to be very serious. The Hampstead Hospital for Consumption, a branch of the Mount Vernon Hospital, has been abandoned in consequence of the increased expenditure necessitated by this act and the serious fall in income occasioned thereby, and it has now been put up for sale. Among other hospitals that have already put on record its blighting effect on their subscription-list, are the Italian Hospital in London, the Royal Alexandra Hospital at Rhyl, the Western Dispensary Westminster, the London Fever Hospital, the London Hospital, the Birmingham General Hospital, Manchester Royal Infirmary, Aberdeen Royal Infirmary, the Royal Victoria Infirmary, Newcastle-on-Tyne, and many others.

The end of instruction in the ordinary principles of health was perhaps never more forcibly shown than at an inquest held recently, at Somersham, Huntingdonshire, on a child two years old. This unfortunate 2-year-old youngster, it appeared, was fed as follows: His breakfast consisted of fried eggs, his dinner of Yorkshire pudding, his "tea" of bread and butter and tea, his supper of warm milk and cheese, and his extra supper (after the picture-show?) of roast pork and beer! Thus do the dictates of fashion disseminate the depraved mode of living of the "hupper suckles" to the lower sucklings!

According to the figures of the Registrar General published on April 7, there was a fall, in the death rate, from the rate for 1912, which was 14.56, to 13.32 in the subsequent period. But the figures also show some less pleasing falls, namely, that of the birth rate, from 24.37 to 23.89, and of the marriage rate, from 17.98 to 15.50. Both these latter drops it is easy to understand, however, when we consider how increasingly difficult the oppressive taxation of the present administration of social charlatans and quack doctors of the body politic is rendering life for

the numerous betwixt-and-between classes of people. While the price of everything, including cost of manual and mechanical labor, is going up with an unprecedented rapidity, and while fictitious and hypothetical panaceas for social betterment are being promulgated as regardless of expense as of any reasonable certainty of their probable efficacy, proportionately the heaviest burden of which fall upon the aforesaid "betwixt and between classes," the incomes of that class alone do not improve, but either remain stationary or tend to diminish. The effect upon marriages and births is a logical corollary.

M.

London, England.

### DO YOU WRITE MUSIC?

Among the thousands of readers of CLINICAL MEDICINE there doubtless are some who write music. If so, I should be pleased to have them "try their hand" on this anapestic poem. It is especially adapted to a good, strong, patriotic air. Brethren, send me your music. I shall appreciate it very much and shall be glad to report through CLINICAL MEDICINE my preference among those submitted to me.

#### I

##### A WEST VIRGINIA STATE SONG

"Mountaineers ever free," thus our motto is sung  
By the poet who prides in his own mother tongue.  
With devotion sublime, a sound cause to uphold,  
West Virginians vowed to remain in the fold.  
Patriotic, our sires, ever loyal and brave,  
That this nation might live, their own blood freely  
gave;  
For in God was their trust, upon Him did they  
lean,  
Till with kindred at home they once more should  
convene.

#### II

Old Dominion, from whom, like Minerva, full  
grown,  
Into being, from Jove, sprang to join in his throne:  
So, thou, "Mother of States," and of "Presidents,"  
too,  
We shall never forget filial bonds to renew.  
There is Washington, Jefferson, Marshall, and Lee,  
Whom we justly revere in our own jubilee.  
Old Virginia, first in our hearts to adore,  
Thy traditions and fame we shall share evermore!

#### III

Eighteen hundred and sixty-three, pivotal year,  
When we severed the ties that had held us so dear;  
June, the twentieth day, our Great Seal indicates,  
We began our career in the union of States.  
To the smoke of the contest, the roar of the guns,  
West Virginia summoned her valorous sons.  
In the tumult of war, in the midst of the strife,  
Like the phoenix of fable, we leaped into life.



## IV

When the North and the South their contention  
did cease,  
Through our land again hovered the sweet "bird  
of peace."  
What a sequel, unique! those in battle array,  
In a bond that grows stronger with each passing  
day.  
On the hills and the mountains, in valley and plain,  
Are the lowing of kine and the waving of grain;  
In the depths of the earth there are treasures un-  
told,  
While our streams a rare treat of great beauty  
unfold.

## V.

To your duties, young men, with unwavering zeal!  
For to you is our future for wo or for weal;  
On ye veterans, too, of past victories won,  
We shall call for advice in the conflicts to come.  
Now at peace with ourselves, now at peace with the  
world,  
In the breezes doth wave our old banner unfurled:  
Should a foe from without once intrude or inveigh,  
Round the flag they will rally, the Blue and the  
Gray!

## CHORUS

Let the young and the old, let the brave and the  
true  
In one chorus unite for the Red, White and Blue.  
Then hurrah for the Stars and the Stripes, our  
ensign,  
Oh, ye sons of our State, what an emblem divine!

J. A. Cox.

Wheeling, W. Va.

## THE WORK OF VON RUCK

In the May issue of this journal, Dr. H. J. Achard contrasts Dr. Friedmann's tuberculosis "cure" with the vaccine and aqueous extract of Dr. von Ruck, of Asheville, North Carolina, and makes a plea for the investigation of the claims set forth by the latter gentleman.

I had the misfortune to become a tuberculosis subject some months ago, and set about to determine the best place for treatment and the best remedy to apply. Investigation led me to select Asheville and the institution conducted by the von Rucks; not, that I thought Asheville was more healthful than Covington—because according to the United States census Covington ranks as one of the healthiest places—but because of the reputation of its physicians.

After partial recovery, I was permitted to assist in the laboratory. The experience was a revelation, and if the simple, direct methods of diagnosing tuberculosis and of controlling the treatment were more generally known to physicians they could more intelligently and successfully battle with this disease.

The frank, open, methods, the quick "precipitin" substitute for the complicated opsonic index, and the apparent proof of the immunizing and destructive action of the serum and tuberculin extract, as shown by the microscope, in addition to the fact that Dr. von Ruck offers his discovery to our countrymen without thought of financial reward, are the features that attract interest to our fellow countryman.

Let there be more investigation of his claims. Perhaps, if you publish this letter, it may aid in arousing an interest that may lead to an investigation.

W. LAURENCE STEVENSON.

Covington, La.

## PREVENTING QUININE RASH

Dr. R. E. Hale, of Bellamy, Alabama, writes us as follows:

"Regarding the prevention of quinine urticaria, it might be added to your recent discussion that, if the stomach be spared and the drug used hypodermatically, no rash will result."

This is a good point and we are glad that Dr. Hale has brought it out. In giving quinine hypodermically, always use a soluble salt. The hydrochloride usually answers every purpose, although quinine and urea hydrochloride, so much employed nowadays as a local anesthetic, is most efficient, easily administered, and causes a minimum of pain. The dosage, of course, will depend upon the character of the case and the age of the patient.

## EMETINE

The value of ipecac in the treatment of enteric diseases has long been recognized by physicians residing in the locality in which these diseases prevail, but they are unanimous in pointing out that results depend upon heroic dosage, and, further, that after a few such gigantic doses have been given the emetic property of the drug becomes predominant, which then necessitates its withdrawal, for the comfort of the patient. The advent of the active principles, however, has solved this problem and rendered ipecac medication absolute and effective.

A study of the chemistry of this drug shows the presence of two chief alkaloids, emetine and cephaeline; the former being classed as an expectorant and locally acting emetic,

while the principal emetic property resides in the cephaline.

While emetine is a most valuable and useful adjunct in the treatment of simple summer diseases, it is in the treatment of Shiga and amebic dysentery that it scores its most brilliant triumphs and has established itself as a specific. In the ordinary cases of diarrhea or dysentery, emetine, in dosage of 1-64 grain, may be given in conjunction with other forms of treatment, one granule every two to four hours. It should be administered dry upon the tongue, and the patient should remain quiet for at least an hour after administration to prevent the occurrence of nausea. In the Shiga and amebic dysenteries, emetine can be exhibited per mouth with good results; but here much more rapid and brilliant results are achieved by the hypodermic use of the soluble hydrochloride, which, as shown by the brilliant and almost unbelievable work of Rogers, possesses, an almost uncanny and magic power in causing a disappearance of the amebæ from the intestinal tract.

The work of Allen, of North Carolina, in similar cases bears out fully the results recorded and published by Rogers, to whom must be given the credit of bringing to the notice of the profession the marvelous therapeutic power of emetine hydrochloride in the treatment of amebic dysentery. It has, no doubt, appeared incredible to many readers that, as Rogers and Allen report, doses as high as 4 grains of emetine can be given hypodermically without producing violent emetic action.

However, a study of the *modus operandi* of emetine in the production of emesis will, I think, clear up the question: Emetine being a local emetic, produces emesis by causing an irritation of the terminal nerve-fibers in the gastric mucosa, hence, when taken into the stomach in sufficiently large doses it produces evacuation of that organ; but having no central action it is without effect upon the vomiting-center in the medulla and therefore its exhibition per hypodermic is devoid of emetic effect.

Lack of space will not admit of a lengthy discussion of the details of the emetine treatment of amebic dysentery. Those who are sufficiently interested the writer would refer to Rogers' report printed in *The Therapeutic Gazette* of December 15, 1912, and the report of Allen in *The Journal of the American Medical Association*, in both of which papers the subject is discussed with the ability and thoroughness characterizing the authors, and

the dosage, technic, and details of treatment are fully outlined.

H. H. REDFIELD.

Chicago, Ill.

#### FOURTH INTERNATIONAL CONGRESS OF SCHOOL HYGIENE

The Fourth International Congress on School Hygiene is to be held at Buffalo, New York, August 25 to 30, under the patronage of President Woodrow Wilson. A comprehensive program of papers and discussions covering the entire field of school hygiene is being prepared. There will also be scientific exhibits representing the best that is being done in school hygiene, as well as commercial exhibits of practical and educational value to school people. Nor will the entertainment of the delegates in any way be a minor feature. Plans are being made for a series of social events, including receptions and a grand ball, a pageant in the park, and excursion trips to the great industrial plants of Buffalo as well as to the wonders of Niagara Falls and the Rapids. Buffalo itself has just taken up a collection of \$40,000 for the purpose of covering the expenses of the Congress.

Delegates will attend from all the leading nations, from every college and university of note in this country, and from various other educational, scientific, medical, and hygienic institutions and organizations. The Congress, further, is open to all persons interested in school hygiene. Membership may be secured by the payment of a five-dollar fee. Applications should be sent to Dr. Thomas A. Storer, College of the City of New York, New York City.

#### THE SLEE MEDAL

Lieutenant George R. Callender, a student in the Army Medical School, at Washington, on May 31 was awarded the Sternberg gold medal for superiority in biology. This medal was presented by Lieutenant Richard Slee, of the Reserve Corps, in honor of his former teacher, Brigadier General George M. Sternberg. The address of presentation was delivered by Brigadier General Sternberg himself. It is of interest to note that the Army Medical School was founded by Brigadier General Sternberg.

Many cases of pneumonia are benefited by the internal use of calcium. Also, keep the alimentary canal clean, and watch heart and pulse.

# JUST AMONG FRIENDS

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

(Continued from page 539, June CLINICAL MEDICINE)

HERE, as in all cases of acidemia, the great need of the system is water, and it should be drank in generous amounts, whether in the form of mineral waters, ordinary water or milk. Purgatives require very careful adjustment. Aloetic as well as the cascara purgatives, it should be borne in mind, tend to produce congestion of the hemorrhoidal veins, with resultant undesirable irritation; the saline laxatives, as a general rule, are best for the purpose, although in elderly people they must be prescribed cautiously. In no small number of cases of irritable weakness, a small dose of a mercurial, followed by a morning laxative saline draught, acts rapidly and very beneficially in securing elimination—which is what is needed, not simple purgation.

In the deeper type, the removal from the habituated home surroundings and conditions, and is imperatively indicated. Hydrotherapy, elimination, and exercise, faradism and franklinization along the spine often are found necessary and valuable. The necessity, in this type of the use of water is no less mandatory than in the first type. Since, however, the patient has an intense repugnance for water, as a rule, the physician will have to exercise much ingenuity to secure compliance.

The acidity of the urine must be reduced to normal, i. e., to between 30 and 40 degrees. This is best accomplished by the mud-baths (a part of the Mudlavia treatment) in connection with giving teaspoonful doses of sodoxylin in about three-fourths of a glassful of water about two hours after eating, say, in middle forenoon, middle afternoon, and at bedtime. To bring the acidity of the urine down to normal will take from one to four weeks, sometimes even longer. If there is much intestinal decomposition, as shown by the presence of indican in the urine, intestinal antiseptics, preferably the compound creosote tablets, or the sulphocarbolates are indicated.

Now as to the diet. Two factors are to be

considered here—the quantity and the kind of food eaten. In the first place, the proteids must be greatly diminished and, while each patient may have to be treated differently as regards food, there are a few general rules which are applicable for nearly all.

The ordinary meats should be replaced by chicken and fish, and by vegetables. In the case of those where the gastric acidity is due to sugar fermentation, starchy foods and sugars should not be partaken of. In others, fruit, both cooked and uncooked, must be forbidden. It is well to be sparing in the use of water with meals, but plenty of water should be drunk between meals. Coarse foods, and not too much at a time, must be eaten sufficiently leisurely to insure thorough mastication and insalivation before swallowing them.

Dr. Mitchell assumed that sometimes in nervous people the activity of a normal function is competent to cause distress in other organs or to awaken unusual symptoms. He cited the case of a lady who, after passing water, had slight chilliness, twitching of the face and extreme palpitation of the heart; yet, the act of urination was, in this case, painless and, in fact, absolutely natural. It is obvious that there is here a failure to recognize the disturbance of the general balance of the nervous system that constitutes health, and a tendency to attribute as reflex what is simply an exaggeration of the normal function of one organ through lessened inhibition of the central nervous system which gives the local excitomotor ganglia full play.

Perhaps nothing better illustrates the position of the Weir Mitchell school than reference to the bladder as a cause of nervous phenomena. The bladder, through its affectability to faint stimuli, is—as Mooseo and Pellicani have shown—an even more delicate esthesiometer than the iris, and is probably the most delicate in our body. Contraction of the bladder follows directly upon the slightest stimulation of any sensory nerve, and all the varying conditions of the organism

that raise the blood pressure and excite the respiratory centers produce an immediate and measurable effect upon this organ. These reactions are much more delicate than those of the blood-vessels and cannot be paralleled by any other part of the organism.

The fainter vesical contractions hardly play a recognizable part in emotion, but when they attain a somewhat higher degree of intensity their influence is easily recognized. A nervous bladder, as Goodell puts it, is one of the earliest symptoms of a nervous brain. It has also been shown by Havelock Ellis that in women a full bladder tends to increase sexual excitement. It is obvious, therefore, that Dr. Mitchell put the cart before the horse in referring phenomena coincident with micturition to bladder disturbance as a cause. The Playfair school, a badly modified offshoot of that of Weir Mitchell, has the same bias.

The fundamental principle of the rest-cure is, to obtain mental and physical rest, and, as a consequence, increased nutrition by virtue of the removal from the old environment. This is a *sine qua non*, and the importance of which cannot be too strongly impressed upon the physician.

Merely changing the environment, however, is not in itself change. To take the patient away from home, is not sufficient. The visits of relatives and friends very frequently introduce the mental atmosphere of the home under which the nervous condition was born. Correspondence, likewise, is apt to occasion a home environment, since in letters people suggest this by saying too much or too little. In any event, such reticence or confidences produce introspection, increasing the worry element, because of the uncertainty thereby engendered.

Here, likewise, is a danger from the attendant nurse, who, if trained in a general hospital, in her examination for symptoms, will immediately suggest the same to the patient and thereby only increase the introspective tendency. The suggestion of the symptoms in itself is not so serious as is the fact that the patient's uncertainty about his mental or physical state is increased. This particular detrimental influence all too often is ignored in the practice of our rest-cure systems; and this factor is peculiarly apt to appear in the rest-cure taken at home, where the patient is much more dependent upon the nurse—especially when a regular medical attendant is not in charge.

In most private nonmedical rest-cures this element of suggestion is completely ignored. The patient, under the pretense of getting rest, is simply left to brood alone, and when the nurse returns the brooding has given rise to fancies and uncertainties that are either ignored, contradicted or humored. Moreover, nurses trained in general hospitals are but too apt to impress the patient with their experience by the narration of medical and surgical cases in many of which the subjective symptoms were those of the patient listening. In this way, oophorectomies are described to women who believe themselves afflicted with serious ovarian difficulties, and gastrectomies are told of to patients who believe that their gastric neurasthenia means cancer; and so down the list of horror-tales.

The prevalent mental trend of the average patient requiring the rest-cure—whether from the secondary consequence of organic disease, from autointoxication or from neurasthenia, or from all three combined—is toward introspection, as has been already pointed out. And this, by all means, must be sought to be prevented.

From introspection and subconsciousness of organ disturbance comes, as Jas. G. Kiernan has remarked, the nosophobia of the neurasthenic. Nosophobia is too often brutally regarded as feigned hypochondriasis, without reference to its underlying factor.

Nosophobia, it must be remembered, differs from hypochondriasis, in being a *fear* of disease rather than a *belief* in its existence. Hence, it is more terrifying than hypochondriasis. Nosophobia, taking a special direction depending on the quack last consulted, has a manifold basis: alcoholophobiac, pseudoreligious, toxicophobiac, psoric, "sex-puristic," testicular, uterine, "canalopathic," myopathic, osteopathic, cylindric, catarrhal, renal, vermicular, reflex, or any of many other directions.

The neurasthenic is peculiarly liable to suggestion, as were the crowds which were "cured" by Valentine Greatrakes in the seventeenth century, and as people nowadays are "cured" by Mother Eddy—alive or dead. This suggestion, however, as a rule, even in mild affections, has but a temporary effect. It may remove a mild obsession, but the introspection and the nervous conditions behind the same are not altered. The suggestion of morbid states, therefore, being in line with the state of nosophobia, naturally

may have very grave results; the more so, as such suggestion, by its influence upon the heart, lungs, liver, and kidneys, may cause great disturbance of those organs.

The action of the heart, lungs or other organs, as registered in the unconscious phases of the "ego," does not, as Kiernan points out, normally form a conscious basis for mental states. Their disturbed action, by destroying the inhibitions that relegate them to the unconscious, now raises them into the subconscious sufficiently to disturb the "ego," and thereby create conditions of anxiety, doubt, introspection, together with their emotional consequences.

These abnormal states of mind occur at first during sleep at the time of the lowest systemic vitality, thus producing the distressing dreams which so often precede the phobias and obsessions of neurasthenia. These dream impressions sometimes are so vivid that a hypnagogic hallucinatory process remains in consciousness, and which later often form a vague delusional, or false, memory.

The individual who, when in a state of nervous exhaustion, becomes conscious of the existence of a disturbed organ, whether resultant upon organic disease, autointoxication or as an expression of nerve-tire, has the first basis of a distressing obsession. The nervous invalids who thus become victims of suggestion are exceedingly numerous, and the average rest-cure, coupled with its conception that rest means simply idleness, tends to develop in their most intractable direction the very conditions it is intended to prevent.

The obsession of the nosophobiac is too readily regarded as a delusion; and this leads frequently to its being humored, according to the latest distorted notion. The obsession of any type is more a fear than a belief. The patient needs reassurance rather than conviction. Indeed, as a rule it is the mingled feeling of uncertainty and the absurdity of the fear that is most distressing. This is the more emphatic, because of the doubt created in the patient's mind as to his mental integrity.

It is on the mental side of the rest-cure that dependence should be placed for removing the subject's state of doubt. Intellectual cultivation through reading by the nurse, and cheerful, yet logical, conversation by the physician on the source and character of the patient's fears is an ex-

cellent means of combating the distressing mental condition of rest-cure patients. Any system without this phase is worse than useless.

Among other errors prominent in the rest-cure as ordinarily practiced, is that of an erroneous dietetics. Considering that the conditions treated by the rest-cure are all of them states in which autointoxication is almost certain to occur, it seems strange that means are not taken to avoid this impediment through proper dietetic rules. To say that the patient must have nourishing food is but to repeat a platitude.

In dietetics, exactly as in medicinal treatment, the patient, and not the disease-label, must be considered. That milk, as pointed out by many rest-cure practitioners, is of value in many instances is undeniable; that milk in many patients, especially in cases of gastrointestinal neurasthenia, will cause gastrointestinal catarrh, is equally undeniable, albeit not generally admitted. That buttermilk many times will beneficially take the place of the harmful sweet milk in just such cases, is absolutely certain; yet, none the less buttermilk is forbidden by the average practitioner of the rest-cure.

Furthermore, that radishes, cabbage, cucumbers, parsnips, eggplant, turnips, carrots, squash, beets, potatoes, sweet-potatoes, as also veal, pork, bananas, berries may, and very frequently do, undergo decomposition in the intestinal canal, with consequent fecal absorption and resultant autointoxication, is now universally accepted as a fact. But, for all that, the application of this knowledge in the dietetics of the rest-cure is exceptional.

That water is needed in great quantities during the rest-cure, is admitted; but the hydrophobia so frequent in patients unfortunately is altogether too often heeded by the physician. Also, the necessity of hot and cold baths is well recognized; still, the patient's disinclination for them usually is humored by the average lay practitioner of the rest-cure.

Massage, which simply takes the place of the necessary exercise which cannot be taken without fatiguing the patient—since he has not only the will to exercise but also not the will to will—too often is given under the pretense of some occult, magnetic, osteopathic or hypnotic influence. But any procedure given under these guises to an introspective patient is, for reasons already outlined, a positive mental and, through the results of a consequent nerve tire, a physical poison.



# AMONG *the* BOOKS



## BIDWELL: "MINOR SURGERY"

Minor Surgery. By Leonard A. Bidwell, F. R. C. S., senior surgeon to the West London Hospital. Second edition, revised and enlarged. With 129 illustrations. London: University of London Press. Published by Hodder and Stoughton, and Henry Frowde. 1912. Price \$3.75.

We often remark that, if a letter is to touch the heart, it must come from the heart. In like manner, if a book is to be of value in teaching, it must be written by a teacher and must embody the fruits of his own experience in teaching. This is what gives value to so many of the textbooks and manuals written by Englishmen, who take the occupation of teaching much more seriously than we Americans do.

The book under review represents the ripe experience of one of the ablest teachers in London—now, alas, unfortunately no longer with us. Based, as it is, upon such experience and practice, it lays down definite and distinct lines of teaching that admit of no ambiguity, combining the useful features of conciseness and detail, so that the reader is able to gather definite information without undue expenditure of time and trouble. The present edition has a human interest attaching to it, in that during its preparation Dr. Bidwell was taken away. After his lamented death the work of revision was continued by Mr. Percy Dunn, but we are assured that all of the essential work had been done by the author before death halted his hand.

## WARFIELD'S "ARTERIOSCLEROSIS"

Arteriosclerosis: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment. With a Special Chapter on Blood Pressure. By Louis M. Warfield, A. B., M. D., with an Introduction by W. S. Thayer, M. D. Illustrated with 28 engravings. St. Louis: The C. V. Mosby Company. 1912. Price \$2.50.

We cannot truthfully aver that this monograph adds anything of real substance to our knowledge of the subject of which it treats.

Indeed, in the ordinarily accepted sense of the term, it cannot properly be called a monograph at all, for we commonly understand a monograph to represent original research-work of its author, while this treatise contains nothing but a compilation of existing literature. However, we hasten to say that it is a very able and complete compilation, and presents the subject in a more sequential and satisfying fashion than we have ever seen it presented elsewhere.

The chapter on the physiology of the circulation and of blood pressure is particularly full and adequate, constituting, in our judgment, the most valuable feature of the book. One would have to do a great deal of scattered reading and sifting in order to unearth what is here set out for him in concise and discriminate form. We fear, though, that we must criticize the section on treatment as being somewhat trite and stereotyped. We never could agree with those who regard the lowering of blood pressure as the first and most obvious step in the treatment of arteriosclerosis. This measure does not appeal to us theoretically, nor has it ever given us anything but disastrous results clinically. We would much rather have had Dr. Warfield's actual and honest personal experiences than the mere recitation of current cut-and-dried teaching upon this and various other points.

## RATCHFORD: "DISEASES OF CHILDREN"

Diseases of Children. By Benjamin Knox Ratchford, professor of diseases of children, Miami Medical College; Department of Medicine, University of Cincinnati. New York and London: Appleton & Co.

In the reviewer's estimation, this is one of the most practical and helpful of the many recently published volumes devoted to pediatrics. The author evidently has written for the general practitioner and has avoided unnecessary etiological considerations and vague theorizing, in order to consider more fully differential diagnosis and rational therapeutic procedures. He recognizes and points out the fact that the undeveloped organism of

the child, because of its physiological peculiarities, reacts to the same pathological factors very differently from the adult.

It is to be regretted that Ratchford—advanced as many of his ideas are—still advocates such uncertain remedial agents as paregoric, syrup of ipecac, chalk-mixture, nuxvomica, etc. Why the pediatricist, especially, should call to aid unpleasant preparations of unknown potency, when codeine, monobromated camphor, emetine, strychnine, and brucine are available in definite dosage is beyond comprehension. Ratchford repeatedly calls attention to the necessity for "cleansing the intestinal tract," but seems to be an ardent admirer of castor oil, frequently recommending it, rather than saline, after calomel. As a whole, however, his drug-therapy is eminently satisfactory, and he is to be especially complimented upon the thoroughness with which dietetic and hygienic treatments are outlined.

The book contains 6 excellent colored plates, and original illustrations have been supplied wherever they seemed essential to a clear conception of the subject under consideration. The young physician desiring a single volume on the diseases of children will make no error in selecting Ratchford; and the successful pediatricist, no matter how extensive his library, will find much to interest him in the individual views of the author.

G. H. C.

#### CULBERTSON: "DOCTORS AND THE LAW"

Medical Men and the Law. A modern treatise on the legal rights and duties and liabilities of physicians and surgeons. By Hugh Emmett Culbertson, of the Ohio and New York bars; contributing editor to the Laning Ohio, "Encyclopedic Digest," and of many other legal publications. Philadelphia and New York: Lea & Febiger, 1913. Price \$3.00.

We have often and often wondered why somebody did not write just such a book as this, judging from first impressions, appears to be. Voluminous and learned treatises there were aplenty on what their authors were pleased pompously to call "medical jurisprudence," which, so far as our own perusal of them went, consisted for the most part of obscure and difficult principles of law applied to equally obscure and difficult instances, drawn from the experience of medico-legal experts (and usually of very ancient date, at that); but no one seemed to think

of writing a plain, simple book of guidance for the average general practitioner, in his day-to-day work, concerning his workaday relations with the law. But this is precisely what Mr. Culbertson has done, and both he and his publishers are to be congratulated and thanked for putting a book of this kind into our hands.

The general physician is wofully ignorant of his rights, and obligations, and liabilities at law; yet, he never knows at what moment he may be called upon to assert or to answer for them, and when he is, he will find, as every man finds, that ignorance of the law is no excuse. He ought thoroughly to inform himself upon these very simple but vital matters; and he can do so in no better fashion than by a perusal of, and constant reference to, Mr. Culbertson's excellent treatise.

#### BULKLEY: "DIET IN SKIN DISEASES"

Diet and Hygiene in Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D., physician to the New York Skin and Cancer Hospital; consulting physician to the New York Hospital, etc. New York: Paul B. Hoeber. 1913. Price \$2.00.

This book is one of a series by the same author on various aspects of skin diseases, all of which reflect the modern view of diseases of the skin being expressions of underlying metabolic disorders. The day has gone by when the dermatologist was a mere dabbler in lotions and ointments. Today dermatology is considerably more than skin-deep; for this branch of the remedial art ramifies into every function and habit of the body—even of the mind—and concerns itself with the body-chemistry, the tissue functions, and the nervous discharges, all of which go to make up the larger physiology and pathology and in the effects of which the skin shares in common with every other organ. Indeed, the skin, being an epithelial end-organ, can hardly fail to react promptly and profoundly to any and every deviation from the normal which occurs in the body-processes; and it is an intelligent recognition of this relationship between them which distinguishes the new dermatology from the old; and this makes itself manifest all through these valuable monographs from the experience and observation of Dr. Bulkley.

Most of the contents of this and of the other books of this series have previously appeared in current medical journals, but none the less do we welcome their assemblage and dovetailing into a whole and permanent piece of

medical literature. Diseases of the skin usually are more or less of a bugbear to the average physician; but he shall find in these monographs much that will make the dark places light, and take away the curse from the study and practice of dermatology.

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**ALLEN: "VACCINE THERAPY"**

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*Vaccine Therapy: Its Theory and Practice.* By R. W. Allen, M. D., B. S.; late clinical pathologist to the Mount Vernon Hospital for Diseases of the Chest; late pathologist to the Royal Eye Hospital; late Gull Student of Pathology, Guy's Hospital. Fourth edition. Philadelphia: P. Blakiston's Son & Co. 1913. Price \$3.00.

This work, in our opinion, is easily the most lucid and practical exposition of the subject of vaccine therapy that thus far has appeared—doubtless because it comes from the pen of a man who himself is unquestionably the ablest exponent both of the theory and the practice of vaccine therapy in England, if not in the world. At all events, Dr. Allen is undoubtedly the best living authority on the clinical aspect of the subject, and it is this phase of the matter which dominates in his book.

Here, in this book, will be found, simmered down into practical, usable form, the entire status of the entire theory and practice of vaccine therapy, down to the present day, all set forth in clear and simple style, so that the general practitioner may share with the specialist a working-knowledge of this important branch of modern medicine. Vaccine therapy is destined to occupy a large place in the medicine of the immediate future, and the physician who would keep abreast of the times will do well to equip himself with a copy of this excellent little book of Dr. Allen's.

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**HENRY: "THE PLANT-ALKALOIDS"**

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*The Plant-Alkaloids.* By Thomas Anderson Henry, D. Sc., F. C. S. Philadelphia: P. Blakiston's Son & Co. Price \$5.00.

The arrangement of this work is analogous to that adopted both by Pictet and Wolffenstein and by Bruhl in their respective treatises bearing the title "Die Pflanzenalkaloide." However, the present work by Henry has the decided advantage that it is just off the press, and in that way could have incorporated in it the latest word, in this field, of modern science.

One is surprised at the wide scope of this work. The author has covered not only the more generally known alkaloids, but has included the very rare plant-principles as well. We are pleased, also, to find that a very extended list of original references has been given. The book is absolutely up to date, including work published as late as 1912.

While this book treats mostly the chemical aspect of the alkaloids, their constitution, cleavage-products, and so on, there will be found, in addition, much interesting historical information, as well as data relative to the mode of manufacture. We are sure that this work will prove a valuable addition to the libraries of all progressive doctors, no less than of pharmacists and chemists. Hence, we take pleasure in recommending this work, the more so, as it is the first one we know of that so thoroughly covers the field of the plant alkaloids.

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**EVANS: "DISEASES OF THE SKIN"**

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*The Diseases of the Skin.* By Wilmott Evans, M. D., B. S., surgeon to the Royal Free Hospital and to the Skin-Department of the Royal Free Hospital; senior surgeon to the Hospital for Diseases of the Skin, Blackfriars. With 32 illustrations. London: University of London Press. 1913. Price \$3.75.

Here is another book on diseases of the skin—this time by an Englishman—and if we might be permitted to offer a criticism we should say that it fails in not taking count of the aspect of the subject the recognition of which made Dr. Bulkley's work so conspicuously illuminating, namely, the relationship subsisting between skin-disorders and metabolic derangement. However, as the author expressly declares in his preface that the object of the book is principally descriptive, perhaps our criticism is a little bit overdrawn. Certainly, from the descriptive standpoint, Dr. Evans's book leaves nothing to be desired, for a small manual.

Both the text and the illustrations give an exceedingly clear and unmistakable picture of the various dermal lesions, all in a very limited and modest scope. The author is quite right in citing as a reason for the general unsatisfactory state of knowledge upon dermatology the too great exhaustiveness of most of the current treatises upon the subject; and a descriptive manual written in as simple a style as is compatible with correctness will fill a useful place. Needless to say that the "correctness" is attained in Dr. Evans's writing.

# CONDENSED QUERIES ANSWERED

## PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

## ANSWER TO QUERIES

ANSWER TO QUERY 5848.—“Wood, Not Worms.” A correspondent, Dr. A. B. Sweet, of Frederick, Oklahoma, suggests that the wood-fiber found in the stools of the stools of the patient whose case was mentioned in Query 5848 are probably slivers of snuffsticks. More than likely the doctor is right.

ANSWER TO QUERY 5910.—“Alopecia.” Messrs. Knoll & Co. request us to print the following comment, abstracted from the *J. A. M. A.*: Chas. J. White, of Boston, professor of dermatology of Harvard University, states, in a paper read at the meeting of the American Medical Association in St. Louis, that he has observed 794 cases of alopecia and seborrhea. He finds that women are more often affected than men, and discusses the possible etiological factors in alopecia simplex and seborrhoeica, the age of the patients affected for the first time, and, finally, the treatment of alopecia seborrhoeica. Besides lotions, he mentions ointments, soaps, internal medication, and mas-

sage. The best results were obtained, however, with the following prescription:

Hydrarg. chlor. corros. . . . . grs. 4  
Euresol pro cap. . . . . drs. 2  
Spirit. formicarum. . . . . fl. oz. 1  
Ol. ricini. . . . . fl. dr. 1 to fl. drs. 3  
Spirit., q. s. ad. . . . . fl. ozs. 3

M. S.: Wash for scalp. (Poison.) Apply in the morning.

The active ingredient of the formula is euresol, the monoacetate of resorcin. With this, the author obtained gratifying results in many, almost impossible, cases. He also gives statistics of the results of his treatment, arranged according to the age. His article, finally, contains a few remarks on seborrhea, and mentions the parts of the scalp which are especially prone to show alopecia areata and herpes tonsurans vesiculosus. In the discussion of White's paper, Dr. Wm. C. Roop, of Dayton, laid stress upon the exceptionally good results obtained with euresol in seborrheic affections. Dr. J. B. Kessler, of Iowa City, has also been very well satisfied with euresol.

## QUERIES

QUERY 5918.—“Freckles.” G. S. S., Texas, being peculiarly “interested in freckles, wishes to learn more about them—their *raison d'être*, especially of those deep-brown blotches on the face, and what will destroy this pigmentation of the skin. In the case he has in mind, this blemish is a family characteristic, every one of the three daughters having them on the face, yet not another spot elsewhere.

The following is an excellent lotion for freckles: Zinc sulphocarbolate, 1 dram;

glycerin, 1 ounce; rose-water, 3 ounces. Apply to the spots night and morning, after bathing the skin with a solution prepared as follows: Into an enameled vessel place 2 handfuls of wheat-bran and 3 pints of water; cover, then allow to simmer for an hour, strain, and make up to 3 pints by adding boiled (or better, distilled) water. To this decoction add 1 ounce of magnesium sulphate, 1 ounce of glycerin, and 4 ounces of rose-water. Of course, plain sterile water, perfumed to suit may be used in place of the rose-water.

Excellent results have been secured by using the bran-decoction in the morning and the zinc-sulphocarbolate and glycerin lotion at night.

Here is another formula which has been thoroughly tried: Ammoniated mercury, 1 dram; bismuth subnitrate, 1 dram; glycerin of starch, 1-2 ounce. Apply to the freckles every other day. If there are only a few freckles, touch them with full-strength solution of hydrogen dioxide, twice daily; the liquid being suitably applied by means of cotton wrapped around the end of a toothpick.

The young women you mention should be carefully dieted. Be sure to keep their bowels freely open. Watch their urine carefully.

QUERY 5919.—“Edema Angioneurotica.” W. J. L., Kansas, describes briefly “an all-prevalent trouble” in that region as “a malignant edema or fibrous condition of the adipose tissue and superficial facia, showing prominently in all patients of from twelve to thirty-five years of age.” The condition, he says, “starts just above the shoe-tops and up, according to age, and on the upper outer part of the arms, at the top of the spine (a ridge crosswise), on the face, thighs, and, in fact, in the chronic cases, anywhere over the body. The treatment has been massage, dry hot air baths, electricity used with baths—galvanic for chemical effect and faradic for tonic effect; also stimulation of all eliminating organs.” We are asked to “give the cause and cure.” The books available to our correspondent touch but lightly upon the subject.

We are extremely interested in the few facts you present. You say, “An all-prevalent trouble in this part which is known as ‘malignant edema.’” Now, malignant edema proper is anthrax. This form of infection by the bacillus anthracis, occurring in the eyelids, head, hands, and arms, is characterized by the absence of papules and vesicles. The edema is extensive and may reach such a degree of intensity that gangrene results. Constitutional symptoms then become extremely grave and the attack invariably proves fatal. For this reason, we are inclined to think that you are not dealing with malignant edema; in fact, it scarcely is possible that so many instances of wool-sorter's disease (anthrax) would be observed in a given locality, unless, indeed, some peculiar condition obtained; that is, that sorting of hides or handling of skins, hair,

etc., are one of the chief occupations of the community.

Unfortunately, you did not give us a clear-enough idea of that pathologic conditions to enable us to arrive at a positive diagnosis, but we take it that the trouble is angioneurotic edema, or acute noninflammatory edema, known as Quincke's disease and as edematous urticaria. This affection is met with in both sexes and at all ages, being probably most frequent in early youth and middle life. Its manifestations are closely allied to those of urticaria. Sometimes subjective symptoms and evidences of an urticarial character are absent. Strangely enough, a family predisposition seems to exist, Osler elicited a history of its occurrence in five successive generations.

Acute circumscribed edema is a vasomotor neurosis, probably due to some disturbance in the central nervous system. The theory has been advanced that the presence in the blood of a lymphagogue in pathological quantity, and rapid rise of lymph pressure produces, in areas of lessened resistance, a sudden vasomotor paralysis.

Heidenhain finds that various substances (egg-albumin, emulsion of shellfish, sugars, etc.) injected into the circulation increase the flow of lymph. Inasmuch as circumscribed edema—giant and simple urticarial eruptions—often appear in individuals whose digestion is disturbed or who have partaken of certain articles of food prone to develop gastric or intestinal toxins, Haidenhein's argument would seem to be well grounded. In some of these cases there is more or less systemic disturbance or evidence of auto-intoxication, individuals not infrequently complaining of malaise and depression preceding the attack. Albuminuria has been observed prior to the appearance of edematous areas; which latter usually appear suddenly and may disappear just as rapidly, or last for several hours or even days, gradually melting away. Swellings elsewhere may then occur and persist for hours or days or exceptionally for months. Graham tells of a patient who scarcely was free from these swellings for any length of time during a year.

The subjective symptoms are itching, burning, more or less tension, and feeling of stiffness in part. Slight elevation of the surface temperature has been noted; then, also, there may be a decided reduction. The nose, lips, ear-lobes, eye-lids, and extremities are most often affected; occasionally the tongue and glottis suffer. In the latter case, death



may result from asphyxiation. The swelling may have the normal color of the skin, or appear pale, pinkish, or even reddish; it is hard, does not pit on pressure; as a rule but one part of the body is affected at a given time, although sometimes several lesions may appear simultaneously or one after another.

It would be interesting to know whether your various patients have recently procured and eaten canned goods (especially fish) secured from a common source. As a matter of fact, this trouble is a somewhat rare and decidedly peculiar one, and there must be an explanation for its prevalence in your neighborhood. Butler says that "the disease appears most often in the winter or early spring months," and he believes males are affected more often than females. He names, as the exciting causes, fright, anxiety, grief, sudden exposure to cold, and the ingestion of certain foods.

The essential diagnostic points are, the sudden appearance of edema, the absence of pain, and the recurrence of the swelling at intervals.

The prognosis usually is good, the malady being a benign, though often a troublesome one. Much will depend upon the patient's mode of living, freedom from nervous disturbances, and strict attention to his diet.

Blue-mass and soda, and podophyllin and bilein, half-hourly for four doses, every other night for a week, in connection with a saline laxative draught the next morning on rising; sodium salicylate, 2 1-2 grains, and the combined sulphocarbolates, 5 grains, alternated, every three hours; and the arsenates of iron, quinine and strychnine after meals, would, in our opinion, prove promptly remedial. The body should be sponged with epsom-salt solution (1 ounce to 3 pints of water) each night on retiring. Diet should be very carefully regulated; fruits, vegetables and cereals being given freely, with buttermilk or milk and Seltzer water to drink. Fruit-juices also are allowable. Meat, eggs, and fish (especially shellfish) should be prohibited.

You must remember that peculiar forms of edema are occasionally observed in hysteria. Charcot's, or "blue," edema is limited to the neighborhood of the joints, as a rule; the hands and forearms, especially upon one side, may be affected. Not rarely it affects the upper arm and leg. Other symptoms of hysteria, such as regional paralysis, contractures, and anesthetic, aesthetic or hyperesthetic areas are frequently observed. Some times it appears gradually, sometimes acutely. The course may be chronic. As with most

hysterical manifestations, however, it may disappear under psychical influences. It is generally supposed that "blue" edema is the result of vasomotor spasm. But it does not seem possible that hysterical edema could be a "prevalent malady" in a circumscribed district, although we must remember that local outbursts of hysteria and other psychoses are on record.

We would ask you to secure a specimen of the urine from say, two of your patients and forward them to our pathologist for examination. At the same time investigate conditions thoroughly and report results for the benefit of the profession.

Points of particular interest are: number of patients reported within six months; their average age; sex; occupation; prior history; diet; area first involved, with description; number of lesions present in an individual at one time; general systemic conditions prior to and during the existence of the edema; length of time the lesions persisted; whether there has been a recurrence. In fact, give all the information you possibly can; for, as already stated, you seem to be in the presence of a most unusual and extremely interesting phenomenon.

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QUERY 5920.—"Drugs Facilitating Labor." A. V. C., Pennsylvania, desires information as to the "best remedies for facilitating labor—especially to hasten a slow delivery."

You will readily understand, doctor, that the selection of drugs in such cases will depend entirely upon the conditions present. For instance, uterine inertia yields, as a rule, to a full dose of quinine; knifeblade rigidity of the os, to lobeloid and caulophylloid. The latter drug is also an excellent *partus preparator*, and should be given, where there is a history of slow or difficult labor, two or three times a day for the last two months of pregnancy.

Aletroid in full doses may be given with caulophylloid, both drugs relieving false pains and coordinating contractions.

Macrotoïd facilitates labor by relaxing the tissues of the perineum and cervix uteri; also synergizes the efforts of the uterus. It may, therefore, be rationally stated that caulophylloid and aletroid, with or without viburnoid, should be given to insure steady and painless parturition. Caulophylloid and lobeloid should be thought of if undue rigidity of the maternal parts retards the advancing head. Glonoïn with macrotoïd sometimes is a promptly acting uterine tonic if the pains cease.

In this connection we reproduce an answer to a Query 5822, "Caulophylloid and Painless Parturition":

"Caulophylloid is a concentration from blue cohosh, or *caulophyllum thalictroides*. The average dose is from 1-6 to 1 grain. It is generally necessary to continue the drug over a considerable period of time in order to secure definite results.

"While we do not understand fully the physiologic action of caulophylloid, we do know that it possesses antispasmodic, diaphoretic, and diuretic properties; moreover, it is a remarkable *partus preparator*, and, if taken for some time prior to confinement, undoubtedly facilitates labor.

"Ellingwood, in his 'Materia Medica and Therapeutics,' says that 'the growth of the fetus has been compared to an apple, which, when fully ripened, falls from the tree.' The effect of caulophylloid is to prolong gestation until the fetus is fully developed. Labor being the physiologic process at full term, and not pathologic, is, therefore, less protracted, less painful, and accidents are less liable to happen.

"Halo, who has studied the drug carefully, states that women receiving caulophylloid may overrun their time ten or twelve days, yet, invariably have easy labors and make good recoveries. Candler, in a paper upon 'Caulophylloid as a Remedy for Rigid Os,' recommends the use of 1-3 of a grain of the drug three times daily for the last three months of pregnancy.

"Viburnoid may advantageously be added in cases where uterine inertia or rigidity of the cervix has been observed at previous deliveries. A rigid os yields promptly to caulophylloid, especially the knifeblade variety; that is, the resistant ring which, by preventing the descent of the head, prolongs labor and wears out the parturient woman. In these circumstances, 1-3 of a grain may be given, with a little hot water, every ten or fifteen minutes until three or four doses have been taken. If immediate results are desired, lobeloid, 1 or 2 granules, may also be given. False pains of the spasmodic type, hourglass contraction and spurious labor-pains are relieved by caulophylloid.

"In threatened abortion, caulophylloid frequently proves useful, relieving the irritation upon which the trouble depends. Uterine tenderness and pain due to congestion, ovarian and mammary irritation and some forms of ovarian neuralgia yield to full doses of caulophylloid. In amenorrhea in young

girls, anemonine and caulophylloid should be alternated, the triple arsenates with nuclein being added for tonic effect."

QUERY 5921.—"Excision of Cervix." I. R. P., Mississippi, asks for data regarding a "few obstetrical cases of excision of the cervix uteri," and who performed these operations.

Excision, or amputation, of the neck of the womb is frequently done, the necessary operative procedures being fully described in any recent work on surgery, among which Keen's "Surgery," Vol. V, or Mulford's "Practice of Surgery" may be mentioned, for instance.

The double-flap or single-flap method may be employed. The latter, known as Schroeder's operation, is the one most frequently chosen in lacerated cervix.

In acquired atresia, the indications are not, of course, for excision, but to remove the obstruction, keep the canal patulous, and relieve the complications.

Not infrequently only divulsion is necessary, a light or heavy dilator being passed into the canal until the tip of the blades meets the obstruction. Then the cavity is forcibly dilated (the operator using his right hand to manipulate the dilator, and steadying the cervix by the bullet-forceps held in the left hand). The cervix, of course, should be pulled well down toward the vulval orifice and some suitable stimulant be deposited in the vagina.

When the obstruction can be seen, it is incised with a straight bistoury and the cervical canal stretched. If the obstruction is high up and cannot be overcome by divulsion alone, it should be punctured by a sharp bistoury, and then the dilator used. Great care must be taken to keep the blade of the bistoury in the line of the canal, otherwise it may enter the walls of the cervix and injure the adjacent structures.

Diagnosis of malignant disease of the cervix uteri is readily made, of course, by inspection through a speculum. If the entire cervix is affected, there will be little or no dilatation; but, if the disease is in an early stage, dilatation may proceed as usual. The necessary dilatation may be obtained by introducing hydrostatic dilators, or by deep incision of the cervix as recommended by Dukrksen. This procedure, however, is open to the objection that it may favor the dissemination of the growth. Hysterectomy should be performed as soon subsequently as is possible.

Delivery by cesarean section is the only procedure that can be adopted in cases where the disease is far advanced. If there is a

prospect of being able to remove the entire growth, delivery of the fetus should be followed by abdominal or vaginal hysterectomy.

Incision, single or multiple, of the cervix is a simple procedure, and, as already stated, is described in any modern work on obstetrics and surgery. Excision of the cervix would seem to us to be uncalled for as an obstetrical procedure. Perhaps, with the aid of a little more explicit information, we might be able to extend more definite information.

QUERY 5922.—“Supposed Goiter in New-born.” J. E. H., Michigan, writes about a woman recently delivered of a 10-pound child which was normal in every way and well proportioned, except that it had a very large goiter or a much enlarged thyroid gland that nearly choked it to death. The mother has always been healthy, but has a goiter of moderate size, which dates from her first pregnancy, three years ago, when a boy was born; the latter always having been well and who never has had a goiter. The mother has been very much troubled with extensive varicose veins on both legs during this pregnancy and to some extent in the first.

Our correspondent remarks that he has never seen such a case in twenty-four years of active practice, and asks whether it is not of very infrequent occurrence; also, what likely is the most important etiologic factor, what the prognosis, and what the safest and best treatment. “It may be possible,” he adds, “that the physician who told him of this instance has mistaken an enlarged thymus for an enlarged thyroid gland; yet, even so, please give prognosis and treatment in the latter case.”

Are you aware, doctor, that the functions of the thymus gland are not definitely known? However, it is subject to atrophy and hypertrophy. Normally it grows rapidly from birth till the second year, then more slowly till thirty, when it begins to shrivel. In acromegaly, leukemia, Hodgkin's disease, Graves's disease, and sometimes in epilepsy, the thymus is hypertrophied. Sudden death may accompany great enlargement; and a seemingly perfectly healthy child with enlarged thymus may die suddenly, without warning. Occasionally a slight cyanosis is noted for a short time prior to death. Intrathoracic pressure may cause asthma. Edema often occurs.

The treatment of hypertrophic thymus is surgical; it must be removed. In some cases, calx iodata, gr. 1-3; potassium iodide, gr. 1-3; and phytolaccoid, gr. 1-6, three times a day,

may be given in alternation with some active preparation of the adrenal glands. Iodine, followed by magnesium-sulphate solution on compresses and galvanism, is the external treatment.

Simple goiter (bronchocoele) usually yields to rational treatment in two to three months.

Syphilitic gummata and tuberculosis have been found in rare instances. Malignant disease involving the thyroid gland has been reported among infantile disorders.

It is very unusual for a child to be born with an enlarged thyroid gland; it is desirable, therefore, to make a definite diagnosis before instituting treatment. We suggest that you make a careful examination of the child, should it live until you see it, and describe conditions minutely. We shall then be in a position to aid you intelligently.

QUERY 5923.—“Veratrine vs. Veratrum.” J. E. S., Texas, recently had to treat a puerperal eclampsia and controlled the convulsions with tincture of veratrum viride administered subcutaneously. He would have liked to use veratrine instead, but did not know in what relative proportion. Our correspondent finds the tincture too irritating, leaving the site of puncture sore and painful for some time after recovery. The doses of the tincture administered ran from 3 to 20 minims, and the Doctor states that, in his own experience, from 40 to 120 minims, all told, always sufficed to control the trouble.

“As there is nothing so pleasant,” he continues, “as to have remedies that can absolutely be depended upon, please, tell me what will be the corresponding dose or what amount of veratrine can be absolutely depended upon to relax the spastic muscles, open up the emunctories, lower arterial tension, and completely stop convulsions, without having to resort to the irrational opiates and other sedatives. Does veratrine slow the pulse to the same extent as does the tincture of veratrum viride? It is the slow pulse what I always aim to secure, regardless of the amount that has to be given under the circumstances.”

In reply, we can only repeat what has so often been pointed out in these columns, namely, that it is not possible to compare an indefinite substance with something definite. Tinctures of veratrum viride—the various lots made, sold, and dispensed—varies materially in their content of the active principles; whereas veratrine, especially the soluble hydrochloride (representing the salts of the mixed alkaloids from the seeds of

asagræa officinalis), is an evenly potent and a comparatively nonirritant substance.

In puerperal eclampsia, 1-64 grain of the veratrine hydrochloride should be given hypodermically every hour, or even oftener until the convulsions cease or vomiting ensues. Administered in small doses, veratrine reduces tension of the arterioles, thus relieving the heart of part of its work—but does not materially reduce the pulse rate; in full doses (by mouth or hypodermatically), it decreases the rate of the pulse and renders it soft and compressible. Any given beneficial effect to be secured from any stated quantity of a tincture of veratrum viride can be obtained from 2-64 to 3-64 of a grain of veratrine hydrochloride. Thus, for instance, three 20-minim or six 10-minim doses of a certain tincture of veratrum viride, may suffice in a particular case; then it is probable that one single injection of a 1-64-grain dose of veratrine hydrochloride would produce the same results.

You say, doctor, that in your experience from 40 to 120 minims of the tincture may be required. This simply means that two, three or even four 1-64 of a grain of veratrine hydrochloride might possibly have to be given; however, one thing you may be sure of—the amount you will have to use of the alkaloid will be less than you would have to give of the best tincture available. Then, also, you will not have the same irritant effect. Moreover, you will *know*, positively, the amount of *active* drug you have exhibited; while, when using a tincture, you can only say that you have given so many drops of it—you do not know how much of the active virtues you have administered. In eclampsia, time is of importance, and the use of definite agents most essential.

In this connection, we want to call your attention to the desirability of alternating lobeline sulphate and veratrine. Lobeline sulphate being a nonirritant, powerful relaxant, acting synergistically with veratrine.

Bear in mind, doctor, that the standard dosimetric granule represents the *ordinary* effective dose. It is not possible to say just how much of the drug will be required in any given case; but, if you will administer this small, evenly effective dose at brief intervals until you get its effect—remedial or physiological—you cannot err, can not overdose, while, as we already have pointed out, you *do know* that every dose you have given represents the best available form in which the medicine can be administered.

QUERY 5924.—“Hydrocephalus.” E.W.S., Oklahoma, has under treatment a hydrocephalic baby, three months old, whose head is enlarging rapidly, the eyes now beginning to show symptoms. Our correspondent, some time ago, read of a country doctor who cured the disease “while you wait,” as it were. “All you have to do is, to turn the sun’s rays on the child’s head and, maybe, ‘press the button,’” he writes. “I don’t remember this wise man’s address, so write to you instead of to him directly. Probably he wouldn’t tell me, anyway, how he does it, if I were to write and ask him. Is there a cure for hydrocephalus?”

We were not aware that hydrocephalus could be cured, even by the sun’s rays, controlled by a button, “while you wait.” As we need not tell you, aspiration of the cranial fluid has been tried, but without really satisfactory results. Iodoform-collodion has been praised by some pediatricists, but is no longer recommended. Blistering, counterirritation, strapping, and lumbar puncture have all been tried by competent men, with no apparent success. Mercurial inunctions and large doses of iodides are most likely to prove effective. If syphilis is at the foundation, benefit may be expected from specific treatment.

One thing, external hydrocephalus must be differentiated from the internal; the latter condition (serum being in the ventricles of the brain) being most commonly seen. Also, the condition must not be confounded with tuberculous meningitis.

The first symptoms that attract attention are: the gradual increase in the size of the head; forehead is high; fontanels are distended and bulging; sutures are wide apart; pupils are enlarged usually; although sometimes contracted; convulsions frequently are present. While the child’s head enlarges, the body emaciates.

The disease usually terminates fatally, at about the seventh year, although in rare instances the condition exists through life, the mental faculties invariably being more or less impaired.

Fisher, in his “Diseases of Infancy and Childhood,” states emphatically that reported cures should be viewed with suspicion. “Look for tuberculous or syphilitic taint in parents and formulate your treatment accordingly.” Another author dismisses the subject with this paragraph: “The life of the child is not to be valued. If the condition can be detected at birth, craniotomy should be performed.”